INSTALLATION AND TECHNICAL REFERENCE MANUAL

WARNING! REMOTE START SYSTEMS ARE ONLY APPLICABLE TO VEHICLES WITH AUTOMATIC TRANSMISSION!

BOTH ORIGINAL KEYS ARE REQUIRED FOR ALL REMOTE START SYSTEMS ON VEHICLES EQUIPPED WITH SECURILOCK!

LINCOLN

Mercury

EXPERT FITMENT REQUIRED

Subject to Change Without Notice

ALL MODELS 2002

Use Caution - Personal Injury

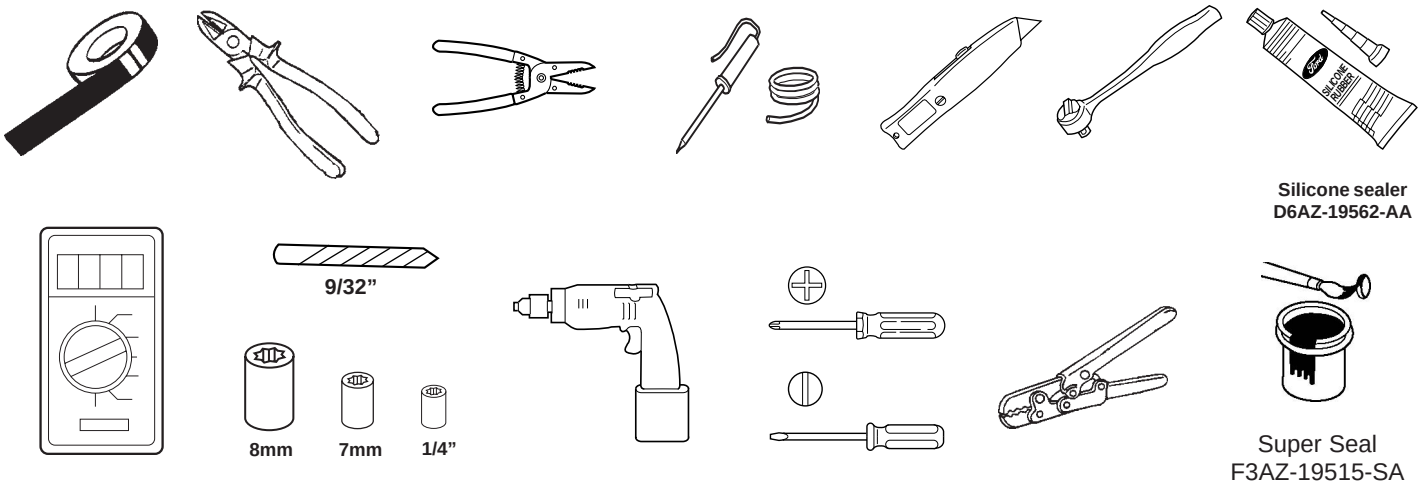
Use Caution - Vehicle Damage

See shop manual

Important note

Technical Support
(800) FORD-KEY
For French Technical Support
Rock Hebert (514) 973-2846

TOOLS REQUIRED



Silicone sealer D6AZ-19562-AA

Super Seal F3AZ-19515-SA

101871-2

TABLE OF CONTENTS

READ ME FIRST 3
KIT CONTENTS 4
PARTS BAG CONTENTS 5
KIT BILL OF MATERIALS LISTS 6
MODULE PREPARATION 9
VEHICLE PREPARATION 11
DIPOLE ANTENNA MOUNTING 12
STATUS LED 13
SECURILOCK INTERFACE KITS - 1L2Z-19G365-AB & 1S4Z-19G365-AB 14
SECURILOCK INTERFACE KIT - 1L3Z-19G365-AB 17
SIREN INSTALLATION 18
HOOD TILT SWITCH INSTALLATION 19
MOUNTING THE CONTROL MODULE 20
SYSTEM WIRING CONNECTIONS 21
WARNING LABEL INSTALLATION 21
SYSTEM PROGRAMMING INSTRUCTIONS 22
- TRANSMITTER PROGRAMMING: 22
- OPTION PROGRAMMING: 22
- SHOCK SENSOR SETTING (RKE/VSS/RMST,DELUXE RKE,RKE/VSS) 24
- SHOCK SENSOR SETTING (VSS) 25
- TACH (IDLE SPEED) PROGRAMMING 26

REFERENCE SECTION 27
SECURILOCK INTERFACE AND RELAY APPLICATION CHART 28
OPTION PROGRAMMING CHARTS 31
- RKE/VSS/RMST OPTION CHART 31
- RKE/RMST OPTION CHART 33
- RMST OPTION CHART 35
- DELUXE RKE/VSS OPTION CHART 36
- RKE/VSS & VSS OPTION CHART 37
- RKE OPTION CHART 38
- LOT MODE ONLY OPTION CHART 39

WIRING HARNESS LEGEND 40
CIRCUIT TESTING - IDENTIFYING CIRCUIT POLARITY 41
WIRE CONNECTION PROCEDURES 42
VEHICLE SPECIFIC WIRING DIAGRAMS 44

READ ME FIRST

For convenience this document uses short names when referring to a particular system or kit. The list below identifies the short names used herein:

Remote Start System with Deluxe Vehicle Security and Keyless Entry —> **RKE/VSS/RMST**

Remote Start System with Keyless Entry —> **RKE/RMST**

Remote Start System —> **RMST**

Deluxe Vehicle Security System with Keyless Entry —> **Deluxe RKE/VSS**

Vehicle Security System with Keyless Entry —> **RKE/VSS**

Vehicle Security System for Vehicles Equipped with Factory Keyless Entry —> **VSS**

Keyless Entry System —> **RKE**

Navigating this document can be accomplished by: 1) using the ◄ ► buttons in the Acrobat toolbar, 2) clicking on the bookmark links in the bookmark pane to the left. (Clicking on the (+) symbols next to a bookmark will expand that bookmark, revealing additional selections) or 3) clicking on a topic in the table of contents located on page 2.

The most current version of this document can be accessed at www.mcdistributor.com and/or www.fmcdealer.com. As new/updated material becomes available, this document will be updated and posted on those sites.

This installation instruction covers the installation of all PowerCode based Convenience/Security and Remote start kits, therefore follow only the steps that apply to the kit that you are installing. For example, the Securilock interface kits are only used on systems that include remote start (RMST). Therefore, if you are installing a security only kit, skip the steps pertaining to the Securilock interface kit.

Vehicle wiring is subject to change. All possible efforts have been taken to ensure that the information contained herein is accurate as of the revision dates indicated. As such, it is critical that vehicle circuits are tested prior to making any connections, to ensure that the proper vehicle circuit has been located.

Prior to beginning this installation it is recommended that you lower the drivers door window to prevent locking the keys in the vehicle.

The installation instructions are presented in three sections. The first section (which begins immediately following this page) contains installation instructions for the systems various components and tips for prepping the systems wiring harnesses. These steps are presented in a generic format. The procedures for these installation steps are basically the same regardless of the model vehicle or system that you are working on. The drawings depicted in this section are for reference only and may not reflect the vehicle on which you may be working.

The second (reference) section contains the system option programming charts and various other reference type information.

The last section represents vehicle specific wiring diagrams for each application. Within the wiring section for each vehicle, there are separate wiring diagrams for each different system. The vehicle specific wiring drawings are arranged in the following order:

1. RKE/VSS/RMST & RKE/RMST (in the same drawing) - Typically 4 pages;
2. RMST - 1 page
3. Deluxe RKE/VSS - 3 - 4 pages;
4. RKE/VSS & RKE installation options - 1 page;
5. VSS - Typically 1 page;
6. Pre-load system wiring - 1 page;
7. Fuse placement and vehicle specific programming requirements - 1 page.

Vehicles that are equipped with 100% factory keyless entry will not have the RKE/VSS & RKE drawing. Some drawings will have blank pages inserted to maintain the page order.

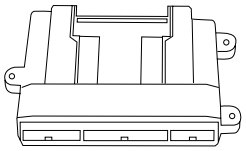
Prior to beginning your first installation of this product it is recommended that you:

1. Thoroughly review and print out the first section;
2. Skim through the reference section to become acquainted with the additional information that is available.

Then, when going through the installation print out the vehicle specific wiring section and use as a reference during the installation.

KIT CONTENTS

A



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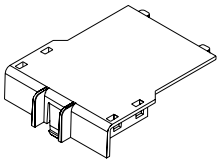

C

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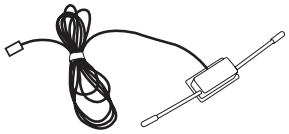
G



H

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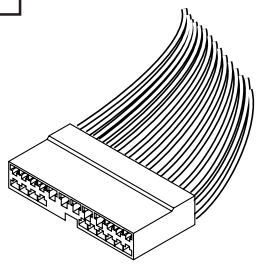

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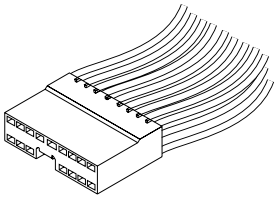

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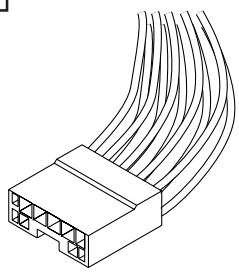

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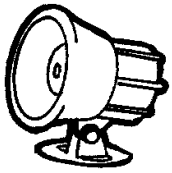
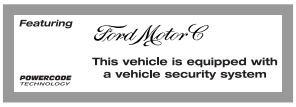


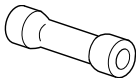
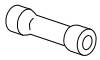
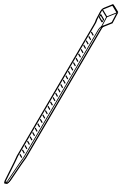
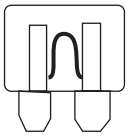
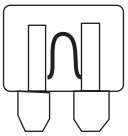
O



P

WARNING: / AVERTISSEMENT
This vehicle is equipped with a remote controlled engine starter. To reduce the risk of serious injury or death, switch engine starter system into service mode and disconnect the vehicle battery before performing any service on the vehicle.
Ce véhicule est doté d'un démarreur à distance. Pour réduire les risques de blessures graves ou mortelles, mettre le démarreur à distance en mode service et débrancher la batterie du véhicule avant d'effectuer des travaux d'entretien sur celui-ci.

PARTS BAG CONTENTS

S 750 OHM 1X	**T** 1800 OHM 1X	**U**  2X	**V**  6X
W 2X	**X**  5X	**Y** 10X	**Z** 1X
AA 2X	**BB** 7X	**CC** 5A  1X	**DD** 15A  PC-12 - 4X PC-32 - 7X

NOTE: Part bag contents are not available as service items

KIT BILL OF MATERIALS LISTS

2W7Z-19G364-AA

Remote Start System w/Deluxe Vehicle Security and Keyless Entry Kit (RKE/VSS/RMST)

REF	DESCRIPTION	QTY
A	PC-32 MODULE ASSEMBLY	1
B	RKE/VSS/RMST DNA ASSEMBLY (2W7J-19G367-BA)	1
C	4 BUTTON POWERCODE TRANSMITTER W/REMOTE START ICONS	2
I	24-WAY WIRING HARNESS (BASE)	1
J	16-WAY WIRING HARNESS (ADVANCE FUNCTIONS)	1
K	10-WAY WIRING HARNESS (CAR START FUNCTIONS)	1
L	STATUS INDICATOR ASSEMBLY	1
G	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
N	125 DB SIREN ASSEMBLY	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1
O	VSS WINDOW WARNING DECAL	2
P	UNDERHOOD WARNING LABEL	1

2W7Z-19G364-BA

Remote Start System w/Keyless Entry Kit (RKE/RMST)

REF	DESCRIPTION	QTY
A	PC-32 MODULE ASSEMBLY	1
B	RKE/RMST DNA ASSEMBLY (2W7J-19G367-DA)	1
C	4 BUTTON POWERCODE TRANSMITTER W/REMOTE START ICONS	2
I	24-WAY WIRING HARNESS (BASE)	1
J	16-WAY WIRING HARNESS (ADVANCE FUNCTIONS)	1
K	10-WAY WIRING HARNESS (CAR START FUNCTIONS)	1
L	STATUS INDICATOR ASSEMBLY	1
G	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1
P	UNDERHOOD WARNING LABEL	1

2W7Z-19G364-CA
Remote Start System Kit (RMST)

REF	DESCRIPTION	QTY
A	PC-32 MODULE ASSEMBLY	1
B	RMST DNA ASSEMBLY (2W7J-19G367-CA)	1
F	2 BUTTON POWERCODE TRANSMITTER W/REMOTE START ICON	2
I	24-WAY WIRING HARNESS (BASE)	1
K	10-WAY WIRING HARNESS (CAR START FUNCTIONS)	1
L	STATUS INDICATOR ASSEMBLY	1
G	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1
P	UNDERHOOD WARNING LABEL	1

2W7Z-19A361-DA
Deluxe Vehicle Security and Keyless Entry Kit (Deluxe RKE/VSS)

REF	DESCRIPTION	QTY
A	PC-12 MODULE ASSEMBLY	1
B	Deluxe RKE/VSS DNA ASSEMBLY (2W7J-19A498-DA)	1
D	4 BUTTON POWERCODE TRANSMITTER W/HEADLIGHT ICONS	2
I	24-WAY WIRING HARNESS (BASE)	1
J	16-WAY WIRING HARNESS (ADVANCE FUNCTIONS)	1
L	STATUS INDICATOR ASSEMBLY	1
G	DIPOLE ANTENNA	1
N	125 DB SIREN ASSEMBLY	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1
O	VSS WINDOW WARNING DECAL	2

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2W7Z-19A361-CA
Vehicle Security and Keyless Entry Kit (RKE/VSS)

REF	DESCRIPTION	QTY
A	PC-12 MODULE ASSEMBLY	1
B	RKE/VSS DNA ASSEMBLY (2W7J-19A498-CA)	1
C	2 BUTTON POWERCODE TRANSMITTER W/LOCK, UNLOCK ICONS	2
I	24-WAY WIRING HARNESS (BASE)	1
L	STATUS INDICATOR ASSEMBLY	1
H	WHIP ANTENNA	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1
O	VSS WINDOW WARNING DECAL	2

2W7Z-19A361-BA
Vehicle Security Kit (VSS)

REF	DESCRIPTION	QTY
A	PC-12 MODULE ASSEMBLY	1
B	VSS DNA ASSEMBLY (2W7J-19A498-CA)	1
I	24-WAY WIRING HARNESS (BASE)	1
L	STATUS INDICATOR ASSEMBLY	1
H	WHIP ANTENNA	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1
O	VSS WINDOW WARNING DECAL	2

2W7Z-19A361-AA
Keyless Entry Kit (RKE)

REF	DESCRIPTION	QTY
A	PC-12 MODULE ASSEMBLY	1
B	RKE DNA ASSEMBLY (2W7J-19A498-BA)	1
I	24-WAY WIRING HARNESS (BASE)	1
L	STATUS INDICATOR ASSEMBLY	1
H	WHIP ANTENNA	1
S - BB	INSTALLATION PARTS BAG	1
CC, DD	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
S	OPERATORS QUICK REFERENCE WALLET CARD	1

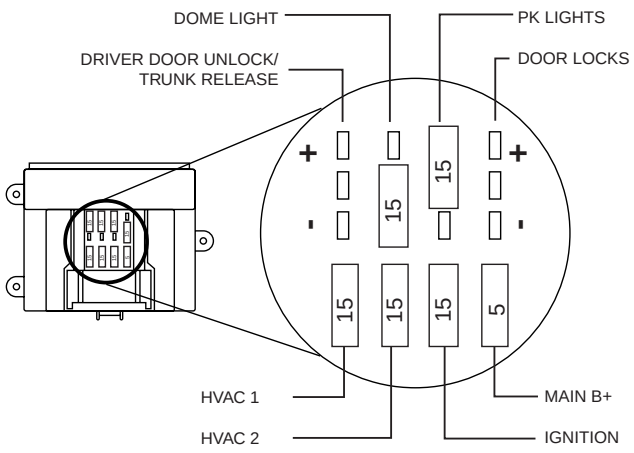
MODULE PREPARATION

1

Place the supplied fuses into the power distribution block on the control module. Refer to the fuse placement drawing for the specific vehicle that you are working on. Fuse placement drawings are located in vehicle specific wiring sections.

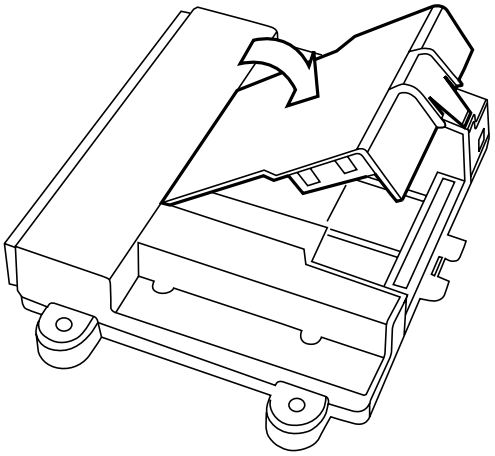
In this diagram, the parking light fuse is shown in the **positive** polarity position and the Dome light fuse is shown in the **negative** polarity position.

Note: The HVAC1, HVAC2 and IGNITION fuses are only used on systems including remote car start (requires PC-32 module).



2

Place the software cartridge (DNA) onto the control module as shown.



3

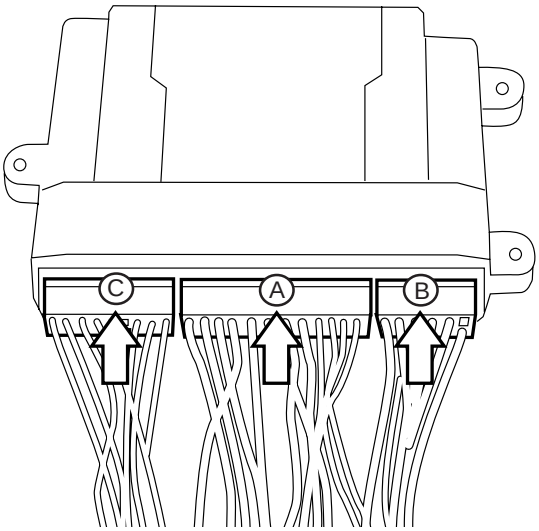
Plug the wiring harness(es) into the module.

Harness A: 24-way, used on all systems;

Harness B: 10-way, used on all systems with car start;

Harness C: 16-way, used on systems with convenience features (i.e. Headlight control, memory seat control) along with some preload system installations in vehicles without factory equipped RKE.

If you are installing a system that uses the whip antenna (RKE, RKE/VSS or Preload), plug the whip antenna into the module at this time.

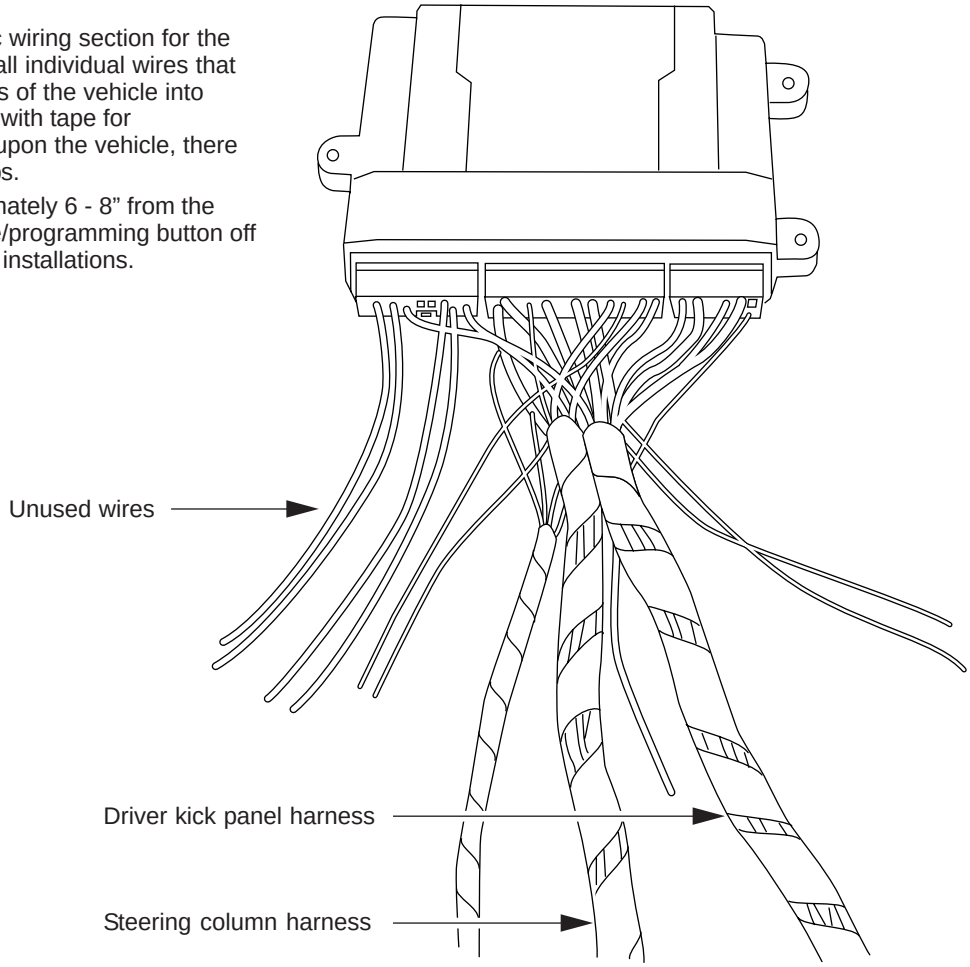


MODULE PREPARATION (Cont't)

4

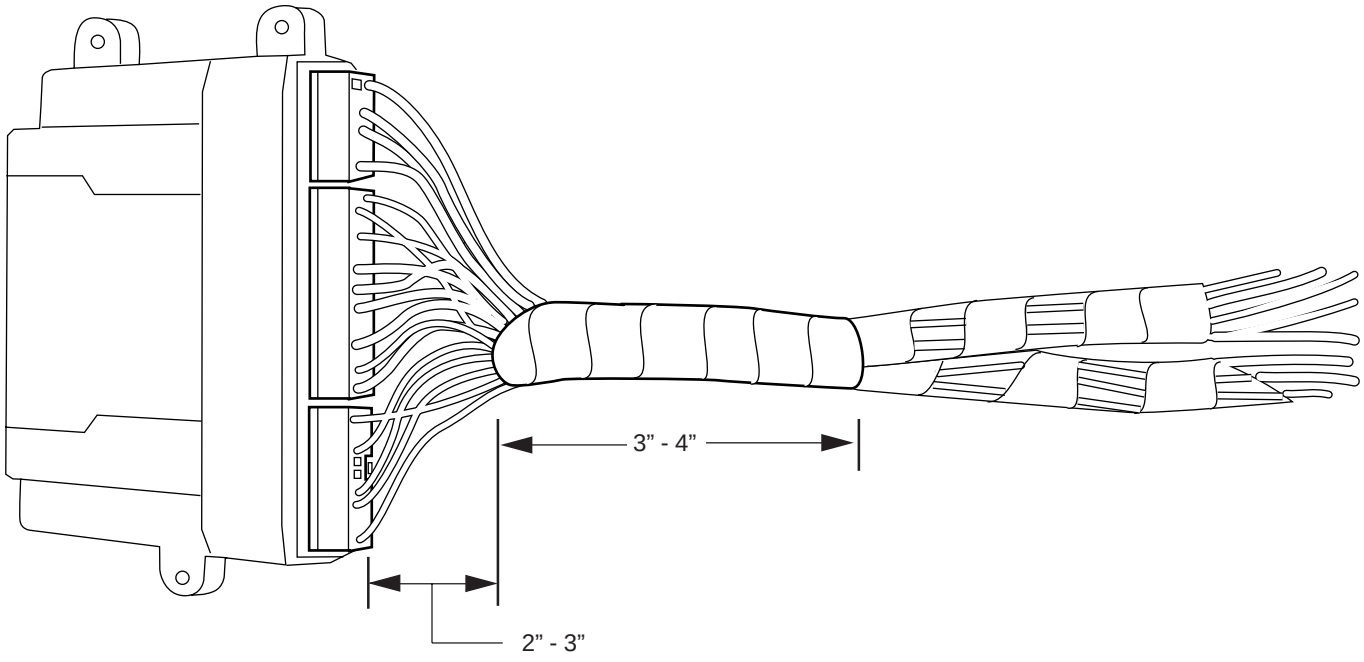
Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with tape for approximately 18". Depending upon the vehicle, there will be 2 - 5 different wire groups.

Trim the unused wires approximately 6 - 8" from the module. Do not cut the override/programming button off of the harness, it is used for all installations.



5

Tape the harness sections together, making sure to cover all of the unused wires.

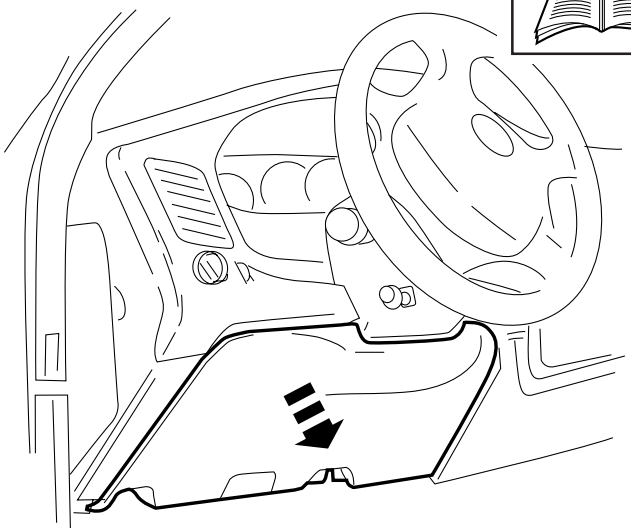


VEHICLE PREPARATION

1

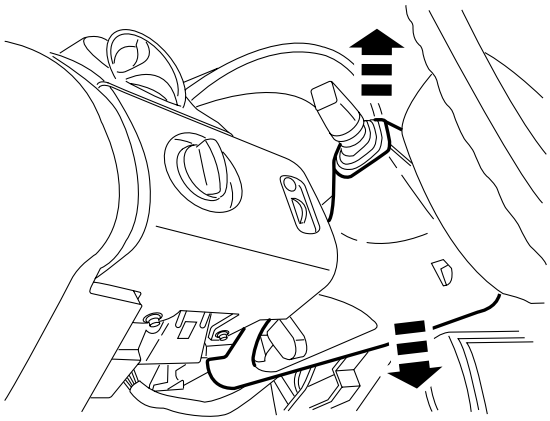
A. To allow access to the necessary vehicle circuits, remove the interior panels as required.

B. Identify the control module mounting location and appropriate vehicle circuit connection points. Plan wire harness routings that will be free and clear of all moving underdash components (i.e. accelerator pedal, adjustable position brake pedal assembly and parking brake mechanism.



2

All models except LS, T-Bird, Escort, Econoline and Super-Duty Pick-ups, remove the steering column shroud to allow access to the PATS transceiver antenna ring around the ignition switch lock cylinder.



3

Test for Factory Perimeter Alarm (vehicles equipped with factory RKE only):

1. Roll down the driver's door window and then close all doors, hood, trunk or hatch;
2. Lock the doors using the factory RKE transmitter;
3. Wait one minute, then reach in the driver door window and open the drivers door (do not unlock doors with the factory RKE remote).

€ If the vehicle's horn begins sounding when the door is opened, the vehicle is equipped with factory perimeter alarm. Unlock the doors with the factory RKE remote to turn off the alarm. In this case, wire the systems factory perimeter alarm disarm wire to the vehicle's perimeter alarm disarm input (See the vehicle specific wiring section). Skip the test for door trim switch disable below.

€ If the horn does not begin sounding when the door is opened, the vehicle is not equipped with factory installed perimeter alarm. Follow the test procedure below for door trim switch disable.

Test for Door Trim Switch Disable option (vehicles equipped with factory RKE only):

1. Roll down the driver door window and close all doors, hood, trunk or hatch;
2. Lock the doors using the factory RKE transmitter;
3. Wait one minute, then reach in the driver door window and press the door trim unlock switch.

€ If the doors unlock, the door trim disable feature is not enabled and no further action is required.

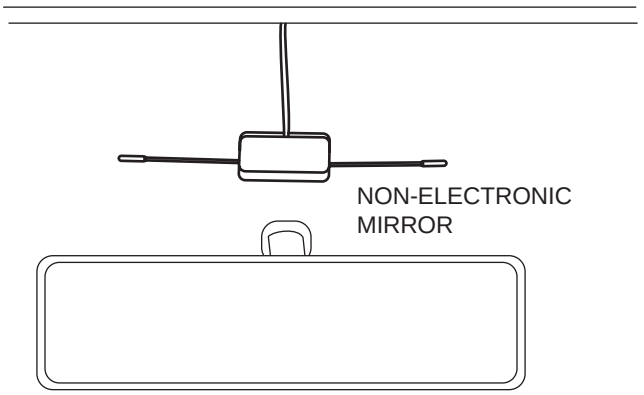
€ If the doors do not unlock, connect the system's factory alarm disarm output as shown in the vehicle specific wiring section or disable the door trim switch disable feature using the NGS or WDS testers.

DIPOLE ANTENNA MOUNTING

1

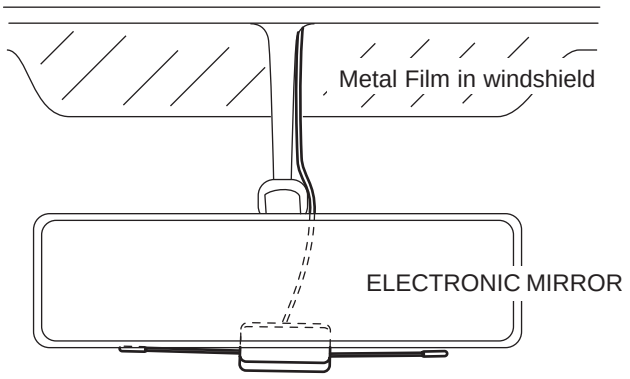
! The optimum operating range for this system is dependant upon proper selection of the mounting location for the Dipole antenna.

- Never mount the antenna behind (or on) any metal film or metal film window tint on the windshield.
- Never mount the antenna so that one of the antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles with no metal film in the windshield around the mirror and a non-electronic mirror, mount the di-pole antenna between the headliner and rearview mirror.
- On vehicles equipped with an “Electronic” mirror or vehicles with metal film in the windshield near the mirror, mount the di-pole antenna approximately 3” below the mirrors attachment point to the windshield and/or any mirror electronics;



A. Clean the selected mounting location using a alcohol based glass cleaning solution.

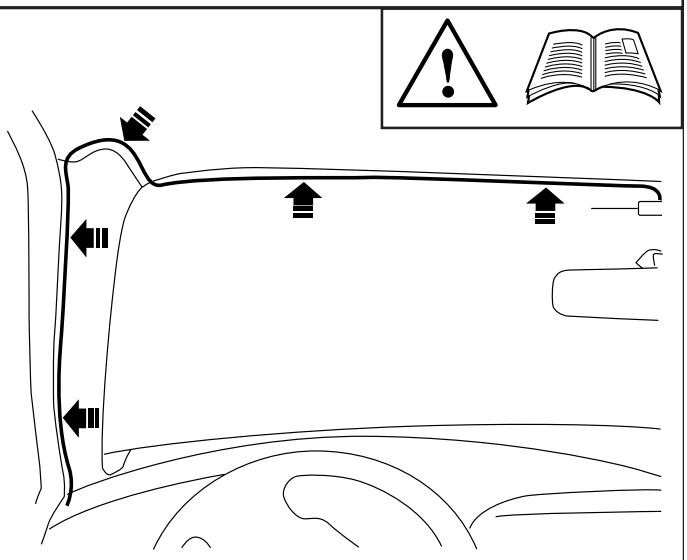
B. Mount the Di-pole antenna as shown. Remove the protective backing from the adhesive. Use care not to touch the adhesive backing. Firmly press on the body of the antenna to ensure good glass to adhesive bond.



2

Route the antenna cable to the control module mounting location. Make sure that the antenna cable is routed free and clear of all moving assemblies such as the emergency brake and/or the adjustable brake pedal assembly.

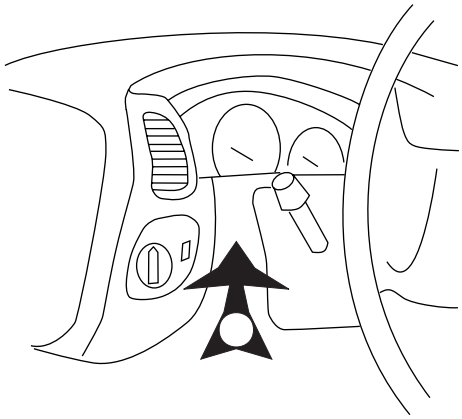
The antenna cable can generally be “tucked” behind the headliner and “A-pillar” trim panel(s) without the need to loosen or remove any of the trim panels. If it is necessary to loosen or remove any of the interior trim panels to run the antenna cable, proceed with caution as these trim pieces are sometimes easily damaged. Also note that some interior trim fasteners are “one-time” use and must be replaced if removed.



STATUS LED

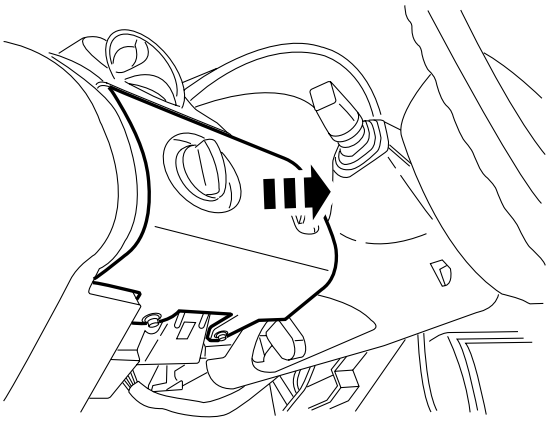
1

Identify a suitable mounting location for the status LED. Make sure that there is at least 3/4” clearance behind the selected mounting location.



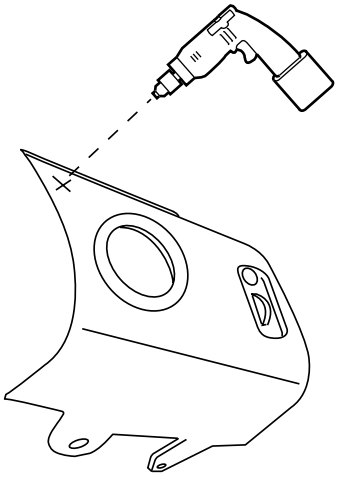
2

If necessary, remove the selected trim panel



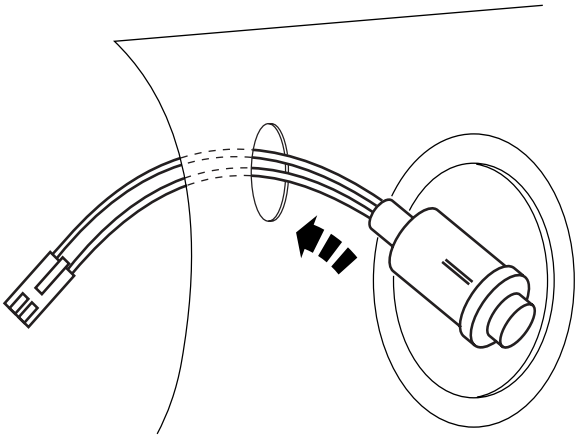
3

Drill a 9/32” mounting hole.



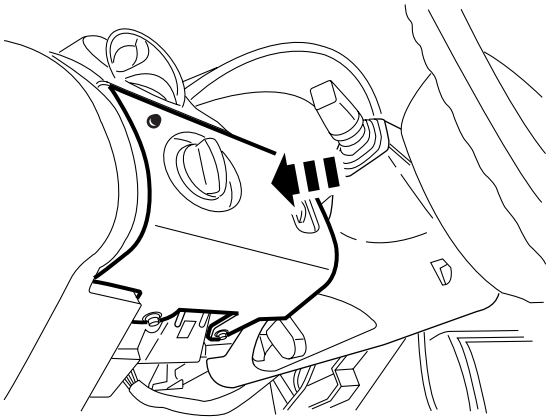
4

Insert status LED into drilled hole.



5

If necessary, reinstall any interior trim panels removed during this procedure.



6

The LED will plug into the main wiring harness during the wiring steps. Make sure to leave the LED pigtail accessible.

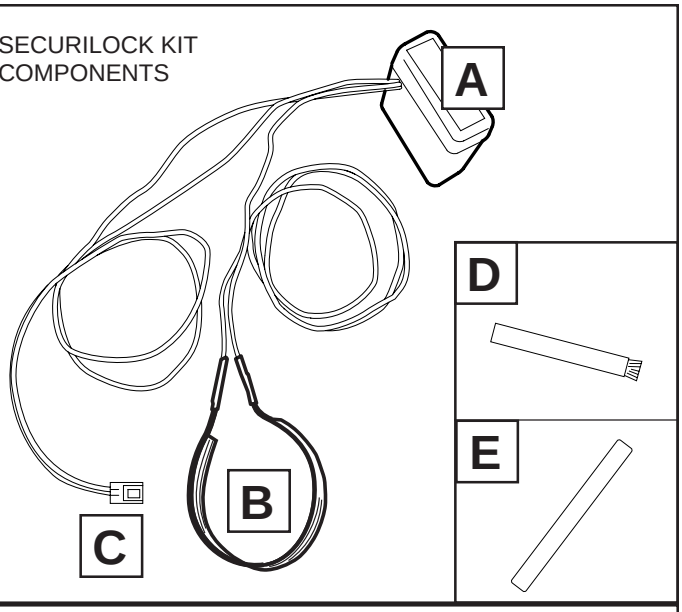
SECURILOCK INTERFACE KITS - 1L2Z-19G365-AB & 1S4Z-19G365-AB

1

Route the loop end of Securilock interface antenna (B) up along steering column to the area around the PATS transceiver antenna coil. Then using the supplied small tie wraps, secure the antenna harness to existing vehicle wiring harnesses along the steering column allowing enough slack for the antenna loop to go around the PATS transceiver antenna.

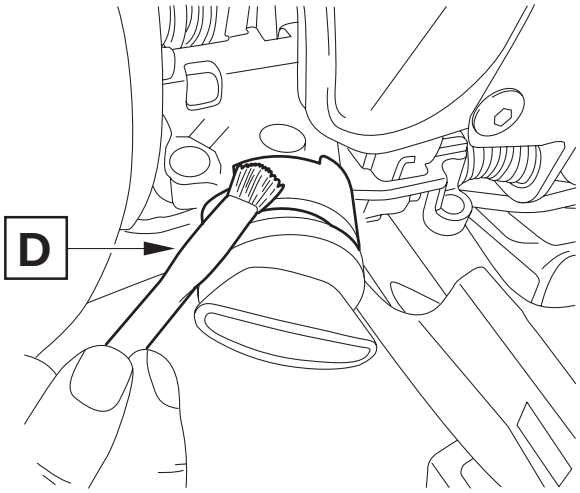
NOTE: On LS and T-Bird, the ignition switch is mounted on the dash to the right of the steering column. On those vehicles, route the securilock interface antenna loop to the ignition switch.

SECURILOCK KIT COMPONENTS



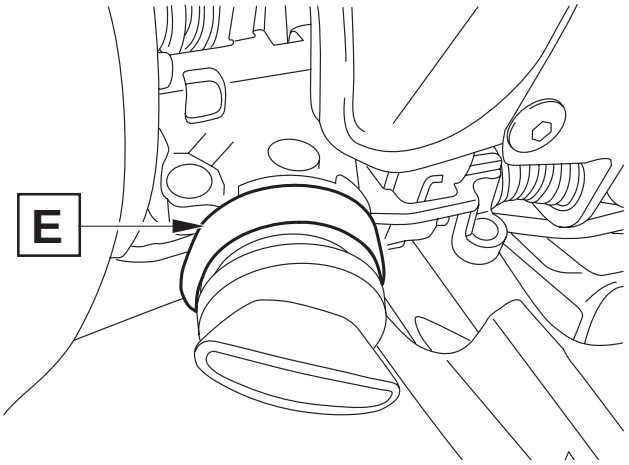
2

Following the directions on the supplied ampule of adhesive primer (D), apply a thin coating primer to entire transceiver antenna coil. Allow the primer to dry for 5 minutes before proceeding with the next step.



3

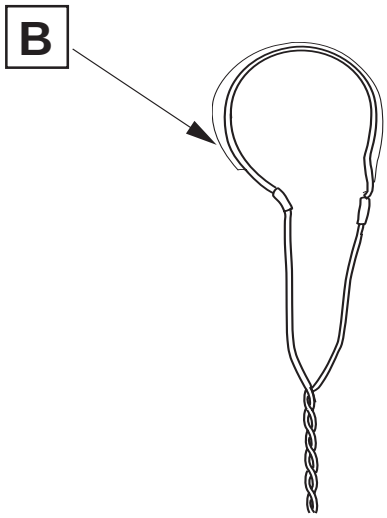
Remove backing from one side of supplied two-way tape (E) and apply tape around transceiver antenna coil.



SECURILOCK INTERFACE KITS - 1L2Z-19G365-AB & 1S4Z-19G365-AB (Con't)

4

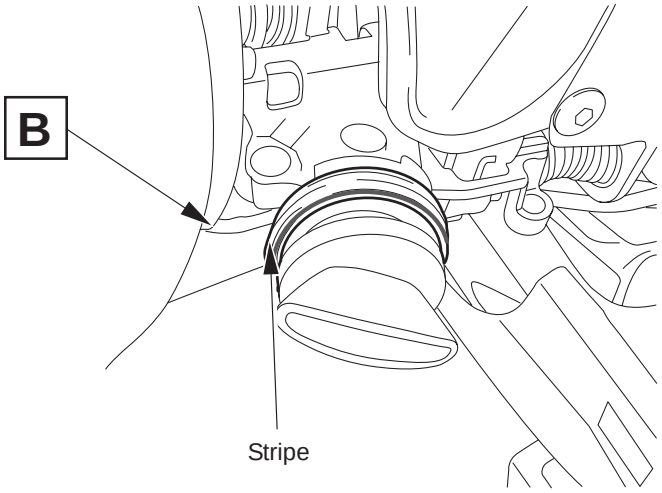
Carefully unwrap four (4) inches of the twisted red wire away from the Securilock PATS antenna loop (B).



5

Remove backing on tape (E) and position antenna loop (B) on tape around antenna coil.

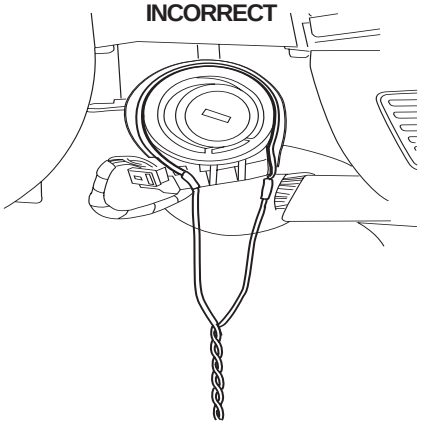
Make sure to align stripe (Black or Red) on antenna loop directly over the PATS antenna coil. The antenna is located near the outer edge (key side) of the transceiver housing. Press on antenna loop wire to ensure initial bond between tape and wire.



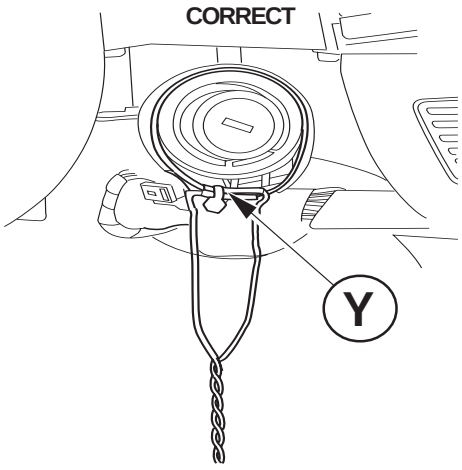
6

A. Use a tie wrap (Y) to complete the bottom of the antenna loop as shown. Make sure that the Securilock PATS antenna loop (B) is as close to the PATS antenna as possible.

INCORRECT



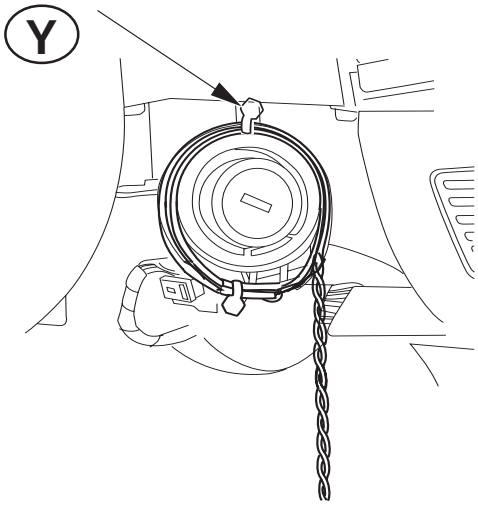
CORRECT



7

A. Using the unwrapped red lead wire make an additional wrap around the Securilock PATS antenna loop as close as possible to the stripe (red or Black) on the Securilock PATS antenna loop.

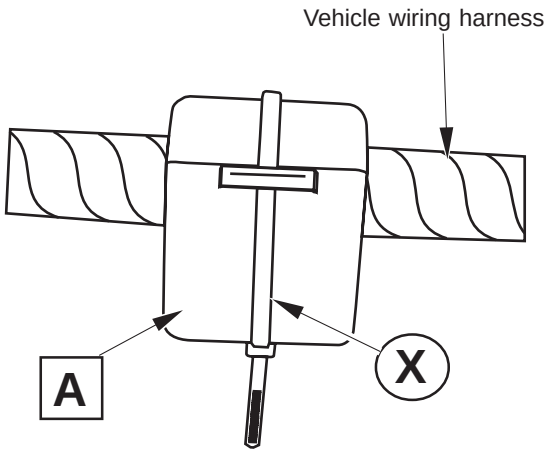
B. Use a tie strap (Y) to secure the additional wrap around the PATS antenna.



8

A. Mount the Securilock Interface Module (A) to an underdash wiring harness using one of the supplied long tie wraps (X) as shown. DO NOT mount the Securilock Interface Module: 1) To or within 3" of a metal surface, including any underdash brackets, or 2) In the knee bolster area.

B. Route the harness and connector (C) to module mounting location.



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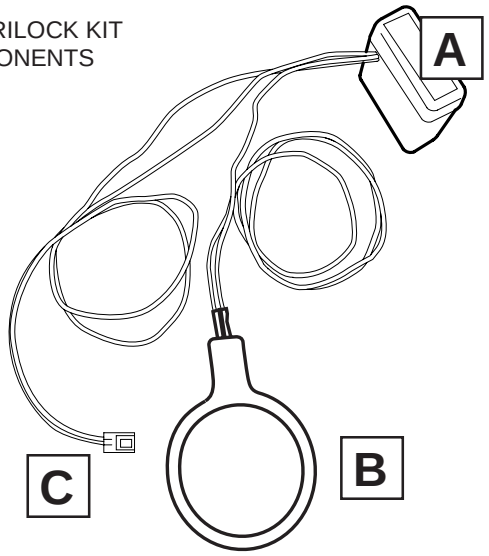
SECURILOCK INTERFACE KIT - 1L3Z-19G365-AB

1

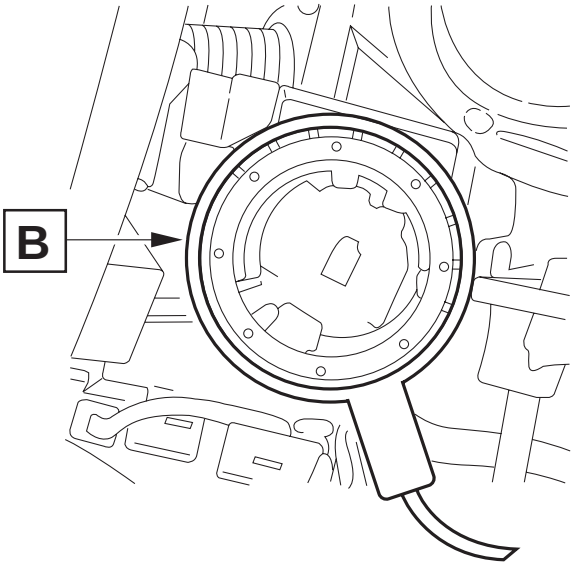
Route the loop end of PATS interface antenna (B) lead up along steering column to area around transceiver antenna coil.

SECURILOCK KIT COMPONENTS



2

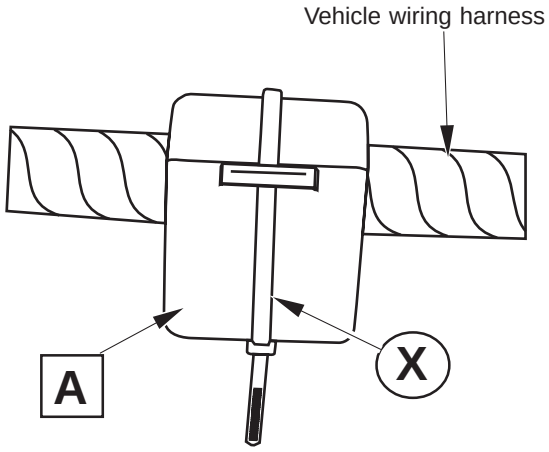
Slip antenna loop (B) over PATS transceiver.



3

A. Mount the Securilock Interface Module (A) to an underdash wiring harness using one of the supplied long tie wraps (X) as shown. DO NOT mount the Securilock Interface Module: 1) To or within 3" of a metal surface, including any underdash brackets, or 2) In the knee bolster area.

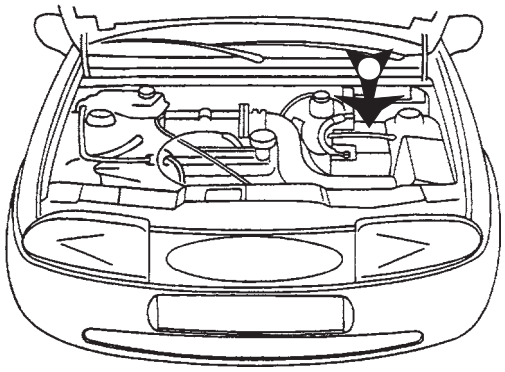
B. Route the harness and connector (C) to module mounting location.



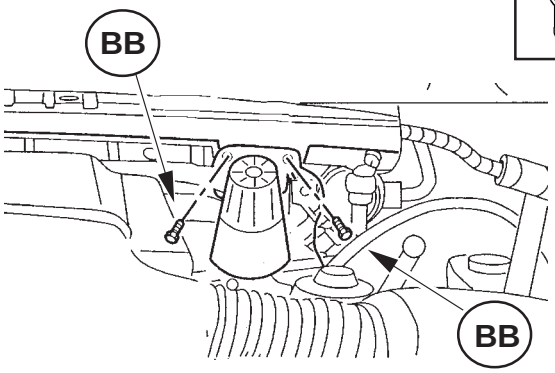
SIREN INSTALLATION

1

Locate a suitable mounting location that away from hot and/or moving vehicle/engine components.



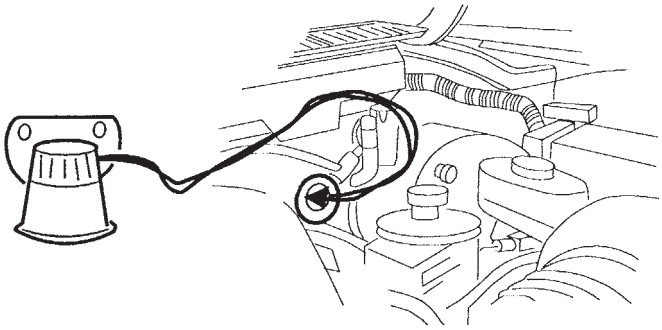
2



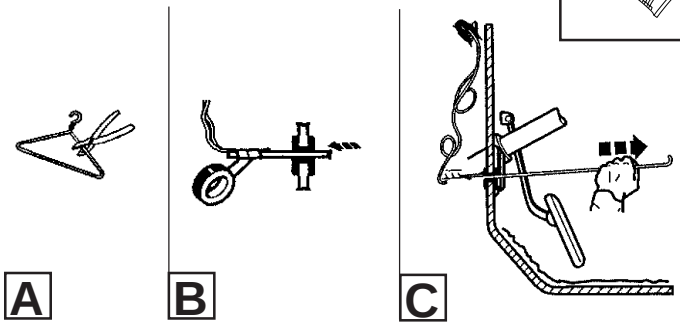
Mount siren using screws provided (BB). Apply rustproofing compound (Super Seal #F3AZ-19515-SA) to drilled holes and mounting screws.

3

Locate a vehicle grommet to route wire through bulkhead panel.



4

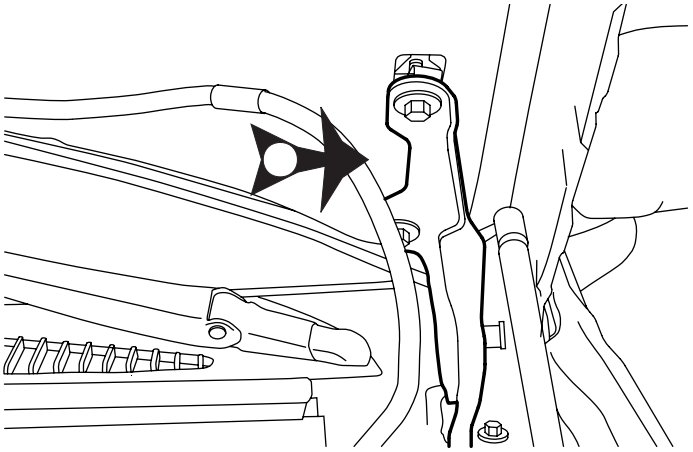


Pass wires into vehicles interior compartment. Use silicone sealer (P/N D6AZ-19562-AA) as necessary to seal grommet.

HOOD TILT SWITCH INSTALLATION

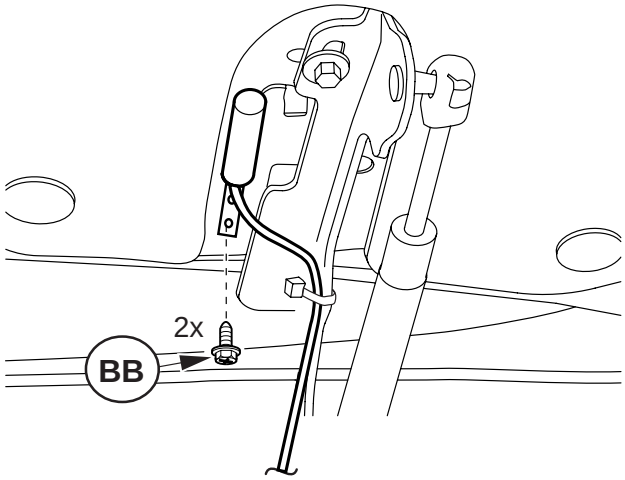
1

Locate an easy to access area near the drivers side hood hinge.



2

Mount the hood safety switch using the supplied sheet metal screws (BB) so that the switch will be biased downward when the hood is closed. Route the wire carefully avoiding any moving parts or excessive heat.

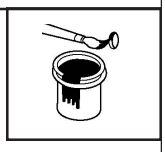


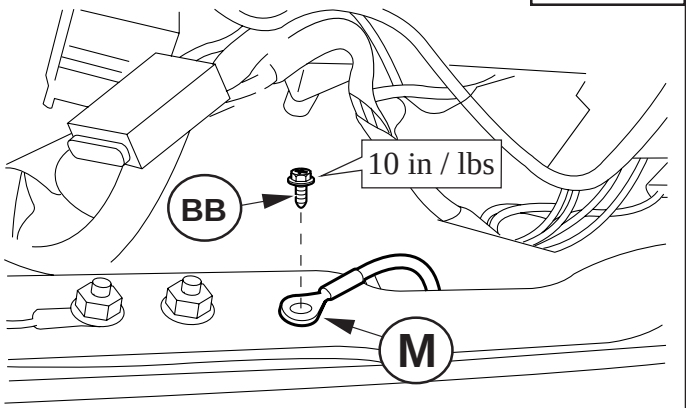
3

Select a proper grounding point and clean surface of paint, grease and dirt. Attach ground lug to connection point using the sheet metal screw provided (BB). Torque ground screw to 10 in / lbs. Apply rustproofing compound (Super Seal #F3AZ-19515-SA) to drilled hole.

Note: Ground connection must be tight and secure. Failure of ground connection can prevent proper operation of system.

The remaining hood switch wire will be connected during the wiring steps. Refer to the siren installation steps for directions on routing this wiring through the bulkhead panel.

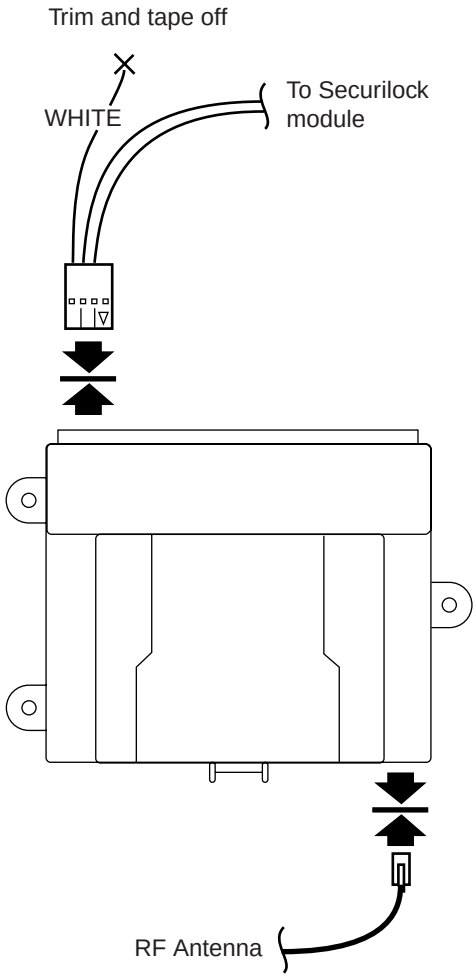




MOUNTING THE CONTROL MODULE

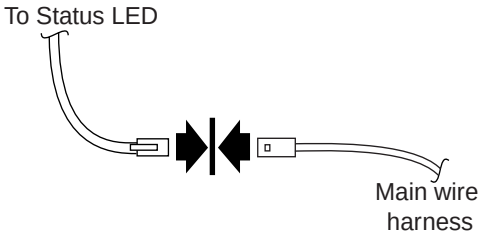
1

Plug the connectors for the Securilock interface and antenna (if not already done) into the control module as shown.



2

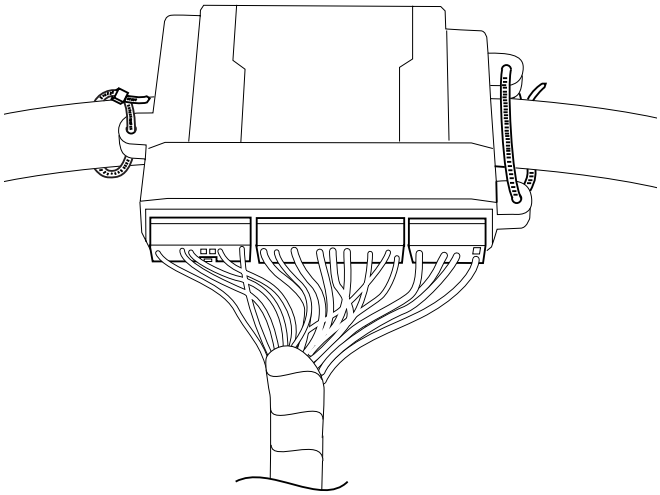
Plug the Status LED into the main wiring harness.



3

A. Using the supplied long tie wraps (X), mount the control module to underdash wiring harnesses and/or dash mounting brackets. Module mounting locations are provided on the last page of the vehicle specific wiring sections. DO NOT mount the control module in the knee bolster area. To ensure best performance of the built-in shock sensor, securely tie wrap the control module at three points to the vehicle.

B. Route the different sections of the wiring harness to the appropriate underdash areas of the vehicle. Neatness in this area is very important in ensuring a quality finished installation. Wherever possible, route the PowerCode system wires along with existing vehicle wiring harnesses and tie wrap the PowerCode wiring harnesses to existing vehicle wiring harnesses.



! Make sure to route the PowerCode system wiring so that it is free and clear of all moving underdash components (i.e. accelerator pedal, adjustable brake pedal assembly and/or parking brake mechanism).

SYSTEM WIRING CONNECTIONS

1

A. Finish routing the systems wiring harnesses to their destination points and secure all system wiring using the supplied tie wraps (Y).

B. Make the wiring connections as shown. Vehicle specific wiring diagrams can be found in two separate files titled “CARS” and “TRUCKS”.

Make sure to test each vehicle circuit prior to making any connections - All vehicle wiring is subject to change.

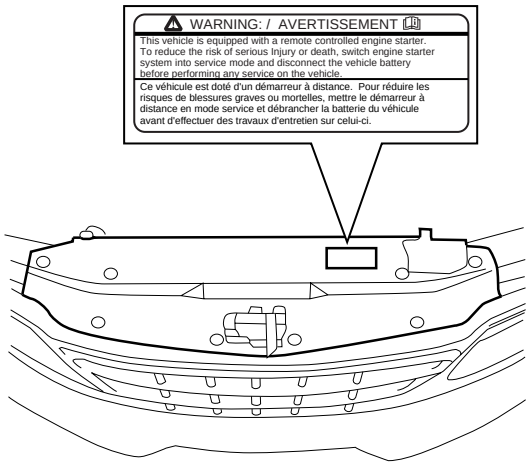
Instructions on proper wiring connection methods and circuit testing can be found in the reference section of this manual.

C. After completing all the system wiring, follow the instructions beginning on the next page to program and test the systems functionality.

NOTE: The system will not function properly if not programmed.

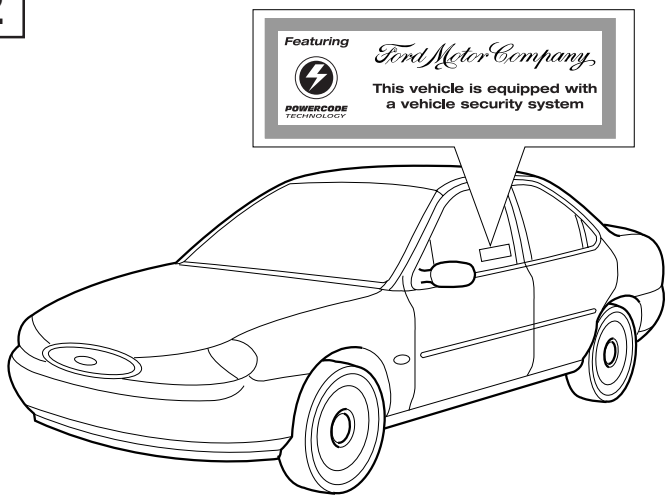
WARNING LABEL INSTALLATION

1


WARNING: / AVERTISSEMENT
This vehicle is equipped with a remote controlled engine starter. To reduce the risk of serious Injury or death, switch engine starter system into service mode and disconnect the vehicle battery before performing any service on the vehicle.
Ce véhicule est doté d'un démarreur à distance. Pour réduire les risques de blessures graves ou mortelles, mettre le démarreur à distance en mode service et débrancher la batterie du véhicule avant d'effectuer des travaux d'entretien sur celui-ci.

RMST SYSTEMS ONLY - Install the Orange warning label on the radiator shroud (or similar area).

2



VSS SYSTEMS ONLY - Install the window decals on both the driver and passenger side windows.

System Programming Instructions

1

Transmitter programming:

A. Open the driver's door (press and hold in brake pedal on Remote Start only system);

NOTE: On vehicles with negative polarity door ajar switch input circuits (Refer to the vehicle specific programming section), the door is closed during this step unless the door ajar switch input polarity option has been previously changed to negative.

B. Turn the ignition key to the ON or RUN position;

C. Press and hold the programming/override button;
After 10 seconds the horn will chirp 3 times, indicating the system is now in the transmitter learn mode.

D. Release the programming/override button;

E. Press transmitter button 1(on all, except RMST system which is) on the on the remote control transmitter to be programmed.
The horn will chirp one time to indicate that the transmitter has been learned.

Notes:

A. Up to a total of 8 transmitters can be programmed at this time

B. Transmitters shipped with complete kits or personality kits are pre-programmed to the DNA and do not need to be programmed at this time.

C. If the vehicle is equipped with memory seats/functions, the last two transmitters programmed will activate the memory seats/functions.

D. All programmed transmitters can be erased from memory by pressing the door trim switch "unlock button" while in transmitter learn mode (requires that the Disarm input and Unlock sense input wires be connected)

2

Each system has several user programmable options which can be changed to accommodate different vehicle options and/or consumers desires. Virtually every installation will require that some option(s) to be changed. Charts listing the options for each system and the factory default settings are located on the following pages.

Option programming:

A. Follow the instructions above to enter transmitter learn mode;

B. Press and release the programming/override button.
The horn will chirp four times indicating the system has entered the first option bank.

Note:

Depending upon the system that you are working with, there will be anywhere from 2 – 5 option programming banks. Each option bank contains anywhere from 2 – 8 options.

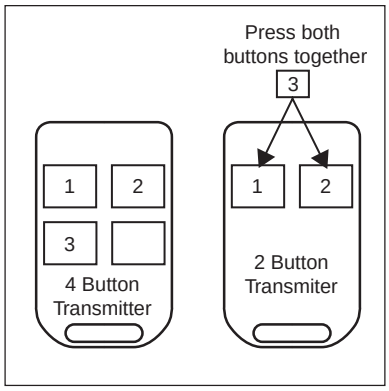
To change the setting of an option (Remote control systems):

A. Press button 3 (see chart to the right) to advance to the desired option (refer to the programming charts on the following pages for the specific system that you are programming;
The horn will chirp a number of times to indicate which option is selected (i.e. Two chirps indicates that option number two has been selected).

B. Press the button 1 to change the setting of the option
The status LED indicates the setting of the option: LED ON indicates that the option is on, LED OFF indicates that the option is off.

Note:

Pressing transmitter button 2 while in any option bank will reset all options, except for the "Installer" options and the shock sensor to their factory settings. The system will respond by chirping the horn 4 times.



2 CONTINUED

To change the setting of an option (VSS system):

A. Press the door trim "Lock" switch to advance to the desired option (refer to the programming charts on the following pages for the specific system that you are programming;
The horn will chirp a number of times to indicate which option is selected (i.e. Two chirps indicates that option number two has been selected).

B. Press the door trim "Unlock" switch to change the setting of the option
The status LED indicates the setting of the option: LED ON indicates that the option is on, LED OFF indicates that the option is off.

Note:

Pressing the door trim switch "lock button" while in transmitter learn mode will reset all options to their factory default settings, except for the installer options and shock sensor settings. The system will respond by chirping the horn 4 times.

To advance to the next option bank:

A. At any point while in option programming, press and release the programming/override button to advance to the next option bank.
The horn will chirp a number of times, indicating which option bank the system has entered (i.e. 5 chirps indicates that the system is in option programming bank #2. Refer to the option programming chart to correlate the horn chirps to option bank).

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3

Shock sensor setting (not applicable to RKE, RMST or RKE/RMST systems)

A). How to Properly Adjust Shock (Lite Touch & Full Shock) Sensor Settings Using a Transmitter (RKE/VSS/RMST, Deluxe RKE/VSS, RKE/VSS - see next page for VSS instructions):

Note: Powercode Systems with Alarm Feature contain one internal shock sensor with two different settings, Lite Touch and Full Shock. When the vehicle is armed, the force which chirps the horn due to impact is determined by the Lite Touch level setting. When the vehicle is armed, the force at which sounds the alarm due to impact is determined by the Full Shock level setting. THE FULL SHOCK LEVEL SHOULD ALWAYS BE LESS SENSITIVE THAN LITE TOUCH LEVEL.

#1). Locate Override button coming from Powercode Module (usually mounted in driver's side kick panel or under dash).

#2). Open driver's door and turn key to ON position.

#3). Press and hold Override Button until horn chirps.

#4). Press again until FOUR chirps are heard. This is option bank #1.

#5). Press button THREE (scroll down) to select first option in option bank #1.
The horn will chirp once to indicate first option in option bank #1.

This is the Lite Touch Adjustment Programming Option. When in this programming option the vehicle will CHIRP the horn when an impact is detected.

To test and adjust current sensitivity level: Start with a light tap on outer rim of steering wheel with open palm of hand. Gradually increase force of tap until horn chirp is detected. This should be set to chirp at a Light to Medium Impact level.

Pressing UNLOCK button on Powercode transmitter will decrease sensitivity. Pressing LOCK will increase sensitivity.

#6). When properly adjusted Press button THREE (scroll down) to select second option in option bank #1. The horn will chirp twice to indicate second option in option bank #1.

This is the Full Shock Adjustment Programming Option. When in this programming option the vehicle will CHIRP the horn when an impact is detected.

To test and adjust current sensitivity level: Start with a light tap on outer rim of steering wheel with open palm of hand. Gradually increase force of tap until horn chirp is detected. This should be set to chirp at a High impact level.

Pressing UNLOCK button on Powercode transmitter will decrease sensitivity. Pressing LOCK will increase sensitivity.

Only a High impact of open hand on steering wheel should cause a chirp. Light to Medium impacts need to be adjusted down by pressing the UNLOCK button on Powercode key fob.

#7). When completed, turn key to OFF.

#8). Arm system and recheck the new settings.

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3 CONTINUED

Shock sensor setting (not applicable to RKE, RMST or RKE/RMST systems)

B). How to Properly Adjust Shock (Lite Touch & Full Shock) Sensor Settings Using the Trim Switch (VSS):

Note: Powercode Systems with Alarm Feature contain one internal shock sensor with two different settings, Lite Touch and Full Shock. When the vehicle is armed, the force which chirps the horn due to impact is determined by the Lite Touch level setting. When the vehicle is armed, the force at which sounds the alarm due to impact is determined by the Full Shock level setting. THE FULL SHOCK LEVEL SHOULD ALWAYS BE LESS SENSITIVE THAN LITE TOUCH LEVEL.

#1). Locate Override button coming from Powercode Module (usually mounted in driver's side kick panel or under dash).

#2). Open driver's door and turn key to ON position.

#3). Press and hold Override Button until horn chirps.

#4). Press again until FOUR chirps are heard. This is option bank #1.

#5). Press lock button on the trim switch (scroll down) to select first option in option bank #1. The horn will chirp once to indicate first option in option bank #1.

#6) Make sure a window is rolled down and shut all doors.

This is the Lite Touch Adjustment Programming Option. When in this programming option the vehicle will CHIRP the horn when an impact is detected.

To test and adjust current sensitivity level: Start with a light tap on outer rim of steering wheel with open palm of hand. Gradually increase force of tap until horn chirp is detected. This should be set to chirp at a Light to Medium Impact level.

Pressing LOCK button on the trim switch will decrease sensitivity. Pressing UNLOCK will increase sensitivity.

#7). When properly adjusted, open a door, press lock button on trim switch (scroll down) to select second option in option bank #1. The horn will chirp twice to indicate second option in option bank #1. Shut door again.

This is the Full Shock Adjustment Programming Option. When in this programming option the vehicle will CHIRP the horn when an impact is detected.

To test and adjust current sensitivity level: Start with a light tap on outer rim of steering wheel with open palm of hand. Gradually increase force of tap until horn chirp is detected. This should be set to chirp at a High impact level.

Pressing LOCK button on trim switch will decrease sensitivity. Pressing UNLOCK will increase sensitivity.

Only a High impact of open hand on steering wheel should cause a chirp. Light to Medium impacts need to be adjusted down by pressing the UNLOCK button on Powercode key fob.

#7). When completed, turn key to OFF.

#8). Arm system and recheck the new settings.

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System Programming Instructions - Remote Start Systems

4

Tach (Idle speed) programming - Remote Start Systems Only

A. Make sure that the hood is closed before proceeding.

B. Enter option learn mode as described in step 2 of this section.

C. € **RKE/VSS/RMST & RKE/RMST** systems - Advance to option bank # 5 (8 chirps)
€ **RMST** system - Advance to option bank #2 (5 chirps) .

D. € **RKE/VSS/RMST & RKE/RMST** system - Advance to option #6;
€ **RMST system** - Advance to option #2.

E. Press and hold in the brake pedal and start the engine using the ignition key.
Allow the engine to settle to a normal idle speed. The system will chirp the horn every three (3) seconds if a valid tach signal is detected.

F. After the engine has settled to a normal idle speed, press and release the FIND/PANIC button (the horn will honk one (1) time) and turn the ignition key off.

NOTE: If the system is not chirping the horn every three (3) seconds after the engine has started, the system is not seeing a valid tach signal. Check your tach connection (refer to the appropriate vehicle specific wiring diagram)

5

Securilock (PATS) Interface Programming and Remote Start Operation Test

(two programmed PATS ignition keys are required for this step)

NOTE: This step does not apply to Econoline, SuperDuty Pick-ups and Escort

A. Sitting in the driver seat, be prepared to press the brake pedal to shut down the remote starter system.

B. Using the first key, turn the ignition on, wait for the THEFT light to turn off, then turn the ignition off and remove key from the ignition switch.

C. Using the second key, turn the ignition on, wait for the THEFT light to turn off, then turn the ignition off and remove key from the ignition switch.

D. Activate the remote start function using the PowerCode remote control transmitter.

The system should flash the parking lights and chirp the horn one time, pause for four seconds then start then start the engine.

E. After the engine is started. Press the brake pedal to shutdown the engine.
The Securilock interface is now programmed. If the theft light begins flashing rapidly and/or the engine does not crank or cranks but will not start, refer to the troubleshooting information below.

F. Open the hood.

G. Sitting in driver's seat, be prepared to press the brake pedal, activate the start function.

The system should chirp the horn two (2) times and abort the start sequence.

H. Close the hood.

I. Place ignition key in the ignition cylinder.

J. Again, Sitting in driver's seat, be prepared to press the brake pedal and activate a start sequence.

The system should chirp the horn one (1) time pause four seconds, then chirp the horn two (2) times and abort the start sequence.

! In steps G and J above, the engine MUST NOT start! If the system starts the engine in either steps G or J, check your hood tilt switch installation and key-in-sense connection.

Troubleshooting steps:

A. If the Securilock interface fails to program (theft light flashing), check the following:

When programming the Securilock Interface timing is important, make sure that you:

1. Turn the ignition on with the second key within 5 seconds of the theft light going out on the first key;
2. Engage the remote start within 5 seconds of the theft going out on the second key;
3. Remove the second ignition key before engaging the remote starter.

NOTE: If a third (or more) PATS ignition key has been programmed to the vehicle using either the Ford NGS or WDS programmers, the "Add Key" mode described in the installation manual may have been disabled. If this is the case, use the NGS or WDS programmer to either re-enable the "add key" mode or program the Securilock Interface kit following the NGS or WDS procedure in the vehicle service manual for adding a new PATS key.

B. If the theft light is solid and engine cranks but will not start:

Check all Ignition (Hot through run and crank circuits) and Heater (Run circuits). Make sure that the correct outputs from the PowerCode module are connected to the correct vehicle circuits. Reversing the heater and ignition circuits from the PowerCode system will not permanently damage the vehicle but may cause the remote start function to not work and/or set a PCM error codes (which will cause the check engine light to stay on). If the check engine light stays on, use the NGS or WDS testers to identify which fault code has been set. The fault code will help identify which circuit is not properly connected.

System Programming Instructions - Security/Convenience Function Test

1

Refer to the Operators manual as necessary and check out the following functions. If any of the functions below, fail to operate, first refer to the vehicle specific wiring diagrams and check the wiring and system programming.

Convenience Functions

- ☐ All Door Lock / All Door Unlock
- ☐ Driver door unlock (if installed)
- ☐ Parking light flash
- ☐ Trunk or hatch release
- ☐ Illuminated entry
- ☐ Ignition triggered lock/unlock (if enabled)
- ☐ Illuminated exit
- ☐ Panic alarm
- ☐ Memory Seat activation (if equipped)
- ☐ Power Side Sliding door activation (if equipped - Windstar only)
- ☐ Power Tonneau cover activation (Blackwood only)
- ☐ Express window down (LS only)
- ☐ Headlight illumination (if installed)

Security Functions

- ☐ Security System Arm / Disarm
  - ☐ Using PowerCode remote control transmitters
  - ☐ Using Factory RKE Keyfobs
  - ☐ Verify interior door trim unlock switch DOES NOT disarm system
- ☐ All entry points trip alarm cycle
- ☐ Status indicator flashes when armed
- ☐ Siren (if installed)
- ☐ Shock sensor settings (lite-touch & full shock)

Remote start convenience functions

- ☐ Heater & A/C operation during remote start
- ☐ Rear defroster (if installed)

Remote start safety functions

- ☐ No remote start activation with the ignition key inserted into the ignition switch
- ☐ No remote start activation with the vehicle's hood open
- ☐ No remote start activation with the vehicle's brake pedal depressed

SECURILOCK INTERFACE AND RELAY APPLICATION CHART

Note: Application information is also located in the vehicle specific wiring section

Model Year / Model 2002	Securilock Interface Kit	Relay Requirements			
		Headlight	Rear Defroster	Driver Door Unlock	Other
Crown Victoria/Grand Marquis	1L3Z-19G365-AB			1	E, F
Econoline	Not Equipped	1		1	
Escort	Not Equipped			1	
Escape	1S4Z-19G365-AB		1	1	
F-150 (Includes Supercrew)	1L3Z-19G365-AB	1		1	E
F-250/350 (Super-Duty)	Not Equipped	1		1	A, E
Expedition/Navaigator	1L3Z-19G365-AB	1		1	B
Excursion	1L3Z-19G365-AB	1		1	A
LS-6/8	1S4Z-19G365-AB			1	
Focus	1S4Z-19G365-AB	1		1	A
Mustang	1L3Z-19G365-AB	1	1	1	
Ranger	1L2Z-19G365-AB	1		1	
Explorer/Mountaineer	1L2Z-19G365-AB	1		1	B
Explorer Sport/Sport Trac	1L2Z-19G365-AB	1	1	1	
Town Car	1L3Z-19G365-AB			1	B, F
Taurus/Sable	1L2Z-19G365-AB	1		1	
Windstar	1L2Z-19G365-AB			1	
T-Bird	1S4Z-19G365-AB			1	
2003					
Aviator	1L2Z-19G365-AB	1		1	D
Crown Victoria/Grand Marquis	1L2Z-19G365-AB			1	E,F
Econoline	Not Equipped	1		1	
Escort	Not Equipped			1	
Escape	1S4Z-19G365-AB			1	
F-150 (Includes Supercrew)	1L3Z-19G365-AB	1		1	E
F-250/350 (Super-Duty)	Not Equipped	1		1	A, E
Expedition/Navaigator	1L2Z-19G365-AB	1		1	
Excursion	1L3Z-19G365-AB	1		1	A
LS-6/8	1L2Z-19G365-AB	1		1	C
Focus	1S4Z-19G365-AB	1		1	A
Mustang	1L3Z-19G365-AB	1	1	1	
Ranger	1L2Z-19G365-AB	1		1	
Explorer/Mountaineer	1L2Z-19G365-AB	1		1	B
Explorer Sport/Sport Trac	1L2Z-19G365-AB	1	1	1	
Town Car	1L2Z-19G365-AB			1	B, F
Taurus/Sable	1L2Z-19G365-AB	1		1	
Windstar	1L2Z-19G365-AB			1	
T-Bird	1L2Z-19G365-AB			1	

Relay's are available by ordering part numbers:
Single: YL3Z-19G390-AA
10 Pack:YL3Z-19G390-BA

A - Trim switchdisable, requires 1 relay
B - Memory seats, requires 2 relays
C - Parking lights, requires 1 relay
D - Key latch release - 1 relay
E- Door Lock/Unlock, requires 2 relays for vehicles w/o factory RKE
F- Remote Start Systems requires 2 relays

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SECURILOCK INTERFACE AND RELAY APPLICATION CHART

Note: Application information is also located in the vehicle specific wiring section

Model Year / Model	Securilock	Relay Requirements			
2004	Interface Kit	Headlight	Rear Defroster	Driver Door Unlock	Other
Aviator	1L2Z-19G365-AB			1	D
Crown Victoria/Grand Marquis	1L2Z-19G365-AB				E, F
Econoline	Not Equipped	1		1	E, G
Escape	1S4Z-19G365-AB			1	
F-150 (Classic Body)	1L3Z-19G365-AB	1		1	E
F-150 (New Body)	1L2Z-19G365-AB	1		1	
F-250/350 (Super Duty)	Not Equipped	1		1	A, E, G
Expedition/Navaigator	1L2Z-19G365-AB	1		1	
Excursion	1L3Z-19G365-AB	1		1	A, G
LS-6/8	1L2Z-19G365-AB				H
Focus	1S4Z-19G365-AB	1			
Freestar/Monterey	1L2Z-19G365-AB		1	1	C
Mustang	1L3Z-19G365-AB	1	1	1	
Ranger	1L2Z-19G365-AB	1		1	
Explorer/Mountaineer	1L2Z-19G365-AB	1		1	
Explorer Sport/Sport Trac	1L2Z-19G365-AB	1	1	1	
Town Car	1L2Z-19G365-AB			1	B, F
Taurus/Sable	1L2Z-19G365-AB	1		1	
T-Bird	1L2Z-19G365-AB			1	
2005					
Aviator	1L2Z-19G365-AB	1		1	D
Crown Victoria/Grand Marquis	1L2Z-19G365-AB			1	E
Econoline	Not Equipped	1		1	E, G
Escape	1L2Z-19G365-AB			1	
F-250/350 (Super Duty)	Not Equipped	1		1	A, E, G
F-150 (New Body)	1L2Z-19G365-AB	1		1	
Expedition/Navigator	1L2Z-19G365-AB	1		1	
Excursion	1L3Z-19G365-AB	1		1	A, G
Five Hundred/Freestyle	1L2Z-19G365-AB			1	
Focus	1S4Z-19G365-AB	1			
Freestar/Monterey	1L2Z-19G365-AB	1	1	1	C
LS-6/8	1L2Z-19G365-AB				H
Mustang (New)	1L2Z-19G365-AB			1	C
Explorer/Mountaineer	1L2Z-19G365-AB	1		1	
Explorer Sport/Sport Trac	1L2Z-19G365-AB	1	1		
Ranger	Not Equipped	1		1	
T-Bird	1L2Z-19G365-AB			1	
Town Car	1L2Z-19G365-AB			1	B
Taurus/Sable	1L2Z-19G365-AB	1		1	

Relay's are available by ordering part numbers:
Single: YL3Z-19G390-AA
10 Pack:YL3Z-19G390-BA

A - Trim switchdisable, requires 1 relay
B - Memory seats, requires 2 relays
C - Parking lights, requires 1 relay
D - Key latch release - 1 relay
E- Door Lock/Unlock, requires 2 relays for vehicles w/o factory RKE
F- Remote Start Systems requires 2 relays
G- Tach Inverter required for vehicles with 6.0Liter diesel engines
H- Parking lights, requires 2 relays

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RKE/VSS/RMST OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Lite-touch adjustment

2 – Full shock adjustment

3 – Optional alarm disable
Disables security functionality. ..... Off

4 – Passive starter Interrupt
Starter interrupt activates 1 minutes after key off event. ..... Off

5 – Passive arming
Security system activates 1 minutes after key off event. ..... Off

6 – Passive door locks
All doors lock automatically 1 minutes after key off event. ..... Off

7 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On

8 – Silent choice
On – Confirmation chirp on second press of transmitter button
Off – Confirmation chirp on first press of transmitter button.
Requires option #7 (above) to be ON. ..... On

Option Bank 2 – 5 chirps — Factory setting

1 – Drivers door priority unlock
Drivers door only unlocks on first press of Disarm/Unlock,
All doors unlock on second press within 5 seconds. ..... Off

2 – Ignition lock
All doors lock when ignition key is turned to on (run). ..... Off

3 – Ignition unlock
All doors are unlocked when ignition key is turned to off. ..... Off

4 – Delayed door lock for ignition lock
Waits 3 seconds after key on event before activating ignition lock.
Used on vehicles with theater dimming interior lights. ..... Off

5 – Illuminated exit
Activates dome light output for one minute when ignition key is turned off ..... On

6 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On

7 – Noise control
Limits alarm trips to 5 per zone ..... On

8 – Factory RKE system does not arm alarm
Prevents factory RKE from arming security system. Still allows
factory RKE to disarm security system. ..... Off

Option Bank 3 – 6 chirps — Factory setting

1 – Tach diagnostic mode
This feature should only be used for troubleshooting purposes only!
Car start function ignores tach input and cranks starter one time for one second.
WARNING – Over rev and stall detection is disabled when this option is enabled. ..... Off

2 – Car start run time
LED On – 15 minutes, LED Off – 10 minutes ..... Off

3 – Lock after start
(Re)locks doors after remote start. ..... Off

4 – One button start
Activates remote start by press and hold of start button. ..... Off

5 – Diesel timer
Delays crank attempt 30 seconds after ignition on. ..... Off

6 – Rear Defrost output activation
LED On- Activation only after remote start, LED Off- Activation anytime ..... On

RKE/VSS/RMST OPTION CHART (Cont't)

Option Bank 4 – 7 chirps

1 – Headlight Output Time (used only when option #5 below is in the LED Off position)*
LED On – 20 seconds, LED Off – .5 seconds ..... On (20 sec.)

2 – Rear Defrost Output Time
LED On – 10 minutes, LED Off – .5 seconds ..... Off (.5 sec.)

3 – Auxilliary Output Time
LED On – .5 seconds, LED Off – Time held ..... On (.5 sec.)

4 – Power Sliding Door Output Time (used only when option #5 below is in the LED On position)*
LED On – .5 seconds, LED Off – Time held ..... On (.5 sec.)

5 – Convert headlight output to act as the power sliding door output .....
(controlled by pressing Find/Panic and Start buttons simultaneously)
LED On- Power Sliding Door Output, LED Off- Headlight Output ..... Off

* The Headlight Output and Power Sliding Door Output both use the C-10 Red/White wire

Option Bank 5 – 8 chirps

1 – Door ajar switch input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

2 – Unlock switch sense input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

3 – Key-in sense input polarity
LED On – Positive, LED Off – Negative ..... Off (Negative)

4 – Door Ajar Input Entry Delay
5 Second entry delay. Used for vehicles with external door mounted RKE keypads ..... Off

5 – Use trunk relay as Driver door unlock
Switches Trunk release and Drivers door unlock outputs ..... Off

6 – Learn tachometer
With hood open or brake pedal pressed start engine. System will chirp horn every five seconds if a valid tach signal is present.

RKE/RMST OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Passive starter Interrupt
Starter interrupt activates 1 minutes after key off event. ..... Off

2 – Passive door locks
All doors lock automatically 1 minutes after key off event. ..... Off

3 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On

4 – Silent choice
On – Confirmation chirp on second press of transmitter button
Off – Confirmation chirp on first press of transmitter button.
Requires option #7 (above) to be ON. ..... On

Option Bank 2 – 5 chirps — Factory setting

1 – Drivers door priority unlock
Drivers door only unlocks on first press of Disarm/Unlock,
All doors unlock on second press within 5 seconds. ..... Off

2 – Ignition lock
All doors lock when ignition key is turned to on (run). ..... Off

3 – Ignition unlock
All doors are unlocked when ignition key is turned to off. ..... Off

4 – Delayed door lock for ignition lock
Waits 3 seconds after key on event before activating ignition locked.
Used on vehicles with theater dimming interior lights. ..... Off

5 – Illuminated exit
Activates dome light output for one minute when ignition key is turned off ..... On

6 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On

7 – Factory RKE system does not arm alarm
Prevents factory RKE from arming security system. Still allows
factory RKE to disarm security system. ..... Off

Option Bank 3 – 6 chirps — Factory setting

1 – Tach diagnostic mode
This feature should only be used for troubleshooting purposes only!
Car start function ignores tach input, cranks starter one time for one second.
WARNING – Over rev and stall detection is disabled. ..... Off

2 – Car start run time
LED On – 15 minutes, LED Off – 10 minutes ..... Off

3 – Lock after start
(Re)locks doors after remote start. ..... Off

4 – One button start
Activates remote start by press and hold of start button. ..... Off

5 – Diesel timer
Delays crank attempt 30 seconds after ignition on. ..... Off

6 – Rear defrost output activation
LED On-Activation after remote start, LED Off-Activation anytime ..... On

RKE/RMST OPTION CHART (Cont't)

Option Bank 4 – 7 chirps

1 –Headlight Output Time (used only when option #5 below is in the LED Off position)*
LED On – 20 seconds, LED Off – .5 seconds ..... On (20 sec.)

2 –Rear Defrost Output Time
LED On – 10 minutes, LED Off – .5 seconds ..... Off (.5 sec.)

3 – Auxillary Output Time
LED On – .5 seconds, LED Off – Time held ..... On (.5 sec.)

4 –Power Sliding Door Output Time (used only when option #5 below is in the LED On position)*
LED On – .5 seconds, LED Off – Time held ..... On (.5 sec.)

5 –Converts headlight to act as power sliding doors .....
(controlled by pressing Find/Panic and Start buttons simultaneously)
LED On- Power Sliding Door Output ..... Off

* The Headlight Output and Power Sliding Door Output use the C-10 Red/White wire.

Option Bank 5 – 8 chirps

1 – Door switch input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

2 – Unlock switch sense input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

3 – Key-in sense input polarity
LED On – Positive, LED Off – Negative ..... Off (Negative)

4 – Use trunk relay as Driver door unlock
Switches Trunk release and Drivers door unlock outputs ..... Off

5 – Learn tachometer
With hood open or brake pedal pressed start engine. System will chirp horn every five seconds if a valid tach signal is present.

RMST OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On

2 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On

3 – Tach diagnostic mode
This feature should only be used for troubleshooting purposes only!
Car start function ignores tach input, cranks starter one time for one second.
WARNING – Over rev and stall detection is disabled. ..... Off

4 – Car start run time
LED On – 15 minutes, LED Off – 10 minutes ..... Off

5 – One button start
Activates remote start by press and hold of start button. ..... Off

6 – Diesel timer
Delays crank attempt 30 seconds after ignition on. ..... Off

Option Bank 2 – 5 chirps — Factory setting

1 – Key-in sense input polarity
LED On – Positive, LED Off – Negative ..... Off (Negative)

2 – Learn tachometer
With hood open start engine. System will chirp horn
every five seconds if a valid tach signal is present.

Deluxe RKE/VSS OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Lite-touch adjustment
2 – Full shock adjustment
3 – Optional alarm disable
Disables security functionality. ..... Off
4 – Passive starter Interrupt
Starter interrupt activates 1 minutes after key off event. ..... Off
5 – Passive arming
Security system activates 1 minutes after key off event. ..... Off
6 – Passive door locks
All doors lock automatically 1 minutes after key off event. ..... Off
7 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On
8 – Silent choice
On – Confirmation chirp on second press of transmitter button
Off – Confirmation chirp on first press of transmitter button.
Requires option #7 (above) to be ON. ..... On

Option Bank 2 – 5 chirps — Factory setting

1 – Drivers door priority unlock
Drivers door only unlocks on first press of Disarm/Unlock,
All doors unlock on second press within 5 seconds. ..... Off
2 – Ignition lock
All doors lock when ignition key is turned to on (run). ..... Off
3 – Ignition unlock
All doors are unlocked when ignition key is turned to off. ..... Off
4 – Delayed door lock for ignition lock
Waits 3 seconds after key on event before activating ignition locked.
Used on vehicles with theater dimming interior lights. ..... Off
5 – Illuminated exit
Activates dome light output for one minute when ignition key is turned off ..... On
6 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On
7 – Noise control
Limits alarm trips to 5 per zone ..... On
8 – Factory RKE system does not arm alarm
Prevents factory RKE from arming security system. Still allows
factory RKE to disarm security system. ..... Off

Option Bank 3 – 6 chirps — Factory setting

1 – Headlight Output time (used only when option #4 below is in the LED Off position)
LED On – 20 seconds, LED Off – .5 seconds ..... On (20 sec.)
2 –Auxilliary Output Time
LED On – .5 seconds, LED Off – Time held ..... On (.5 sec.)
3 – Power sliding Door Output Time (used only when option #4 is in the LED On position)
LED On – .5 seconds, LED Off – Time held ..... On (.5 sec.)
4 – Convert headlight output to act as power sliding door output
(controlled by pressing the Find/Panic and Headlight buttons simultaneously)
LED On - Power Sliding Door Output, LED Off - Headlight Output ..... Off

Option Bank 4 – 7 chirps

1 – Door ajar switch input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)
2 – Unlock switch sense input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)
3 – Door ajar input entry delay
5 Second entry delay. Used for vehicles with external door mounted RKE keypads ..... Off
4 – Use trunk relay as Driver door unlock
Switches Trunk release and Drivers door unlock outputs ..... Off

RKE/VSS & VSS OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Lite-touch adjustment

2 – Full shock adjustment

3 – Optional alarm disable
Disables security functionality. ..... Off

4 – Passive starter Interrupt
Starter interrupt activates 1 minutes after key off event. ..... Off

5 – Passive arming
Security system activates 1 minutes after key off event. ..... Off

6 – Passive door locks
All doors lock automatically 1 minutes after key off event. ..... Off

7 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On

8 – Silent choice
On – Confirmation chirp on second press of transmitter button
Off – Confirmation chirp on first press of transmitter button.
Requires option #7 (above) to be ON. ..... On

Option Bank 2 – 5 chirps — Factory setting

1 – Drivers door priority unlock
Drivers door only unlocks on first press of Disarm/Unlock,
All doors unlock on second press within 5 seconds. ..... Off

2 – Ignition lock
All doors lock when ignition key is turned to on (run). ..... Off

3 – Ignition unlock
All doors are unlocked when ignition key is turned to off. ..... Off

4 – Delayed door lockfor ignition lock
Waits 3 seconds after key on event before activating ignition locked.
Used on vehicles with theater dimming interior lights. ..... Off

5 – Illuminated exit
Activates dome light output for one minute when ignition key is turned off ..... On

6 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On

7 – Noise control
Limits alarm trips to 5 per zone ..... On

8 – Factory RKE system does not arm alarm
Prevents factory RKE from arming security system. Still allows
factory RKE to disarm security system. ..... Off

Option Bank 3 – 6 chirps — Factory setting

1 – Door ajar switch input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

2 – Unlock switch sense input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

3 – Door ajar input entry delay
5 Second entry delay. Used for vehicles with external door mounted RKE keypads ..... Off

4 – Use trunk relay as Driver door unlock
Switches Trunk release and Drivers door unlock outputs ..... Off

RKE OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Lite-touch adjustment

2 – Full shock adjustment

3 – Optional alarm disable
Disables security functionality. ..... Off

4 – Passive starter Interrupt
Starter interrupt activates 1 minutes after key off event. ..... Off

5 – Passive arming
Security system activates 1 minutes after key off event. ..... Off

6 – Passive door locks
All doors lock automatically 1 minutes after key off event. ..... Off

7 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On

8 – Silent choice
On – Confirmation chirp on second press of transmitter button
Off – Confirmation chirp on first press of transmitter button.
Requires option #7 (above) to be ON. ..... On

Option Bank 2 – 5 chirps — Factory setting

1 – Drivers door priority unlock
Drivers door only unlocks on first press of Disarm/Unlock,
All doors unlock on second press within 5 seconds. ..... Off

2 – Ignition lock
All doors lock when ignition key is turned to on (run). ..... Off

3 – Ignition unlock
All doors are unlocked when ignition key is turned to off. ..... Off

4 – Delayed door lock for ignition lock
Waits 3 seconds after key on event before activating ignition locked.
Used on vehicles with theater dimming interior lights. ..... Off

5 – Illuminated exit
Activates dome light output for one minute when ignition key is turned off ..... On

6 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On

7 – Noise control
Limits alarm trips to 5 per zone ..... On

Option Bank 3 – 6 chirps — Factory setting

1 – Door ajar switch input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

2 – Use trunk relay as Driver door unlock
Switches Trunk release and Drivers door unlock outputs ..... Off

LOT MODE ONLY OPTION CHART

Option Bank 1 – 4 chirps — Factory setting

1 – Lite-touch adjustment

2 – Full shock adjustment

3 – Optional alarm disable
Disables security functionality. ..... Off

4 – Passive starter Interrupt
Starter interrupt activates 1 minutes after key off event. ..... Off

5 – Passive arming
Security system activates 1 minutes after key off event. ..... Off

6 – Passive door locks
All doors lock automatically 1 minutes after key off event. ..... Off

7 – Selectable chirps
Enables arming/disarming confirmation chirps (uses horn). ..... On

8 – Silent choice
On – Confirmation chirp on second press of transmitter button
Off – Confirmation chirp on first press of transmitter button.
Requires option #7 (above) to be ON. ..... On

Option Bank 2 – 5 chirps — Factory setting

1 – Drivers door priority unlock
Drivers door only unlocks on first press of Disarm/Unlock,
All doors unlock on second press within 5 seconds. ..... Off

2 – Delayed door lock for ignition lock
Waits 3 seconds after key on event before activating ignition locked.
Used on vehicles with theater dimming interior lights. ..... Off

3 – Horn used for alarm
Horn sounds during alarm/panic cycles ..... On

4 – Noise control
Limits alarm trips to 5 per zone ..... On

Option Bank 3 – 6 chirps — Factory setting

1 – Tach Diagnostic Mode
Car start function ignores tach input, cranks starter one time for one second.
WARNING – Over rev and stall detection is disabled. ..... Off

2 – Car start run time
LED On – 15 minutes, LED Off – 10 minutes ..... Off

3 – Lock after start
(Re)locks doors after remote start. ..... Off

4 – One button start
Activates remote start by press and hold of start button. ..... Off

5 – Diesel timer
Delays crank attempt 30 seconds after ignition on. ..... Off

Option Bank 4 – 7 chirps — Factory setting

1 – Door ajar switch input polarity
LED On – Positive, LED Off – Negative ..... On (Positive)

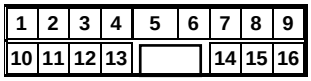
3 – Key-in sense input polarity
LED On – Positive, LED Off – Negative ..... Off (Negative)

5 – Use trunk relay as Driver door unlock
Switches Trunk release and Drivers door unlock outputs ..... Off

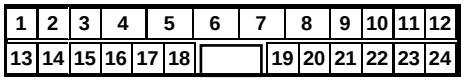
6 – Learn tachometer
With hood open or brake pedal pressed start engine. System will chirp horn
every five seconds if a valid tach signal is present.

WIRING HARNESS LEGEND

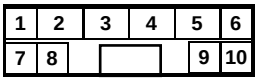
EXTENDED FUNCTION



MAIN HARNESS



CAR START



WIRE END VIEWS

Main Harness (24-way)

Terminal	Wire Color	Function
A-1	WHITE	Parking Light Output
A-2	BLUE	Door Lock Output
A-3	BLACK/WHITE	Dome Light Output
A-4	RED	Battery
A-5	BLACK	Ground
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-9	BROWN	Disarm Input
A-10	YELLOW/WHITE	Door Trigger Input Pull-up
A-11	WHITE/BLUE	Arm Input
A-12	LT.GREEN	Unlock Switch Sense Input
A-13	TAN	Trunk Release/Driver Door Unlock Release Output
A-14	GREEN	Door Unlock Output
A-15	RED	Siren Feed
A-16	BLACK	Siren Output
A-17	BROWN	Programming/Override Button
A-18	BROWN	Programming/Override Button
A-19	GRAY	Hood Open Switch Input
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-21	BROWN/BLACK	Horn Relay Output
A-22	RED	LED
A-23	BLACK	LED
A-24	BLUE/GREEN	(-) Drivers Door Unlock/Trunk release Output

Car Start Harness (10-way)

Terminal	Wire Color	Function
B-1	BLUE	HVAC2 Feed
B-2	RED	HVAC1 Feed
B-3	PINK/WHITE	Ignition 2 Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
B-6	Open	-
B-7	BROWN	Brake Input
B-8	BLACK/WHITE	Key-in-sense Input
B-9	VIOLET/WHITE	Tach Sense Input
B-10	BLUE/BLACK	Active Out

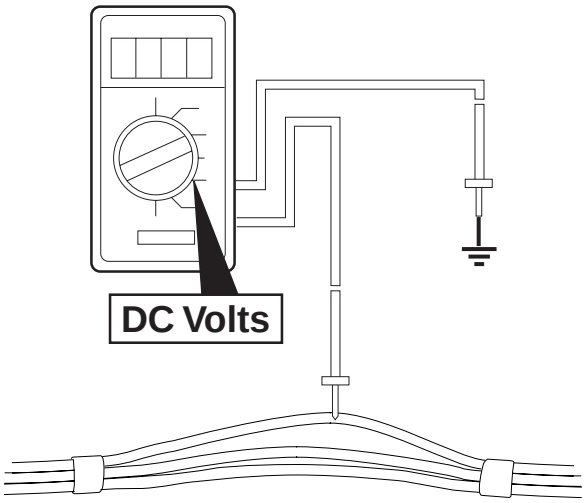
Extended Function Harness (16-way)

Terminal	Wire Color	Function
C-1	BLUE/BLACK	Door Lock Switch Input
C-2	BLACK/GREEN	AUX 3
C-3	GREEN/BLACK	Door Unlock Switch Input
C-4	LT.GREEN/BLACK	Factory Perimeter Alarm Disarm Output
C-5	Open	-
C-6	Open	-
C-7	BROWN/TAN	Trunk Release Disarm Input
C-8	BLUE	Trunk Ajar Input
C-9	TAN/RED	Trunk Release/Driver Door Unlock Switch Input
C-10	RED/WHITE	Headlight Output / AUX 1
C-11	BLUE/WHITE	Rear Defroster Output / AUX 2
C-12	GREEN/WHITE	Memory 1 Output
C-13	YELLOW/GREEN	Memory 2 Output
C-14	Open	-
C-15	Open	-
C-16	Open	-

Circuit Testing - Identifying Circuit Polarity

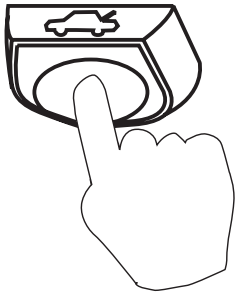
1

Digital Volt Meter (DVM) set to “DC Volts”.
Negative lead (Black) connected to a chassis ground.
Positive lead (Red) connected to circuit under test.
Observe reading from meter.



2

Actuate the circuit under test.



3

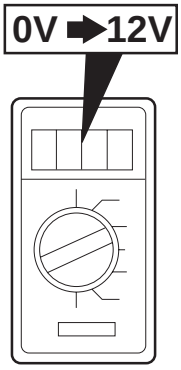
Observe reading from meter.

A reading of 0V transiting to +12V when the switch is pressed, indicates that the circuit under test is a **Positive** polarity circuit.

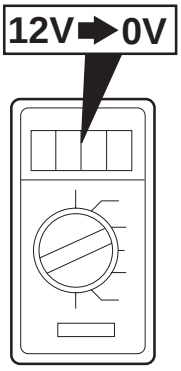
A reading of +12V transiting to 0V when the switch is pressed, indicates that the circuit under test is a **Negative** polarity circuit.

!

NOTE: When testing a Negative polarity circuit, the stand by voltage will not always be +12V. In some cases the reading observed prior to actuating the circuit could be less than one (1) volt. However, when actuated the observed voltage will be 0V or very close to it.



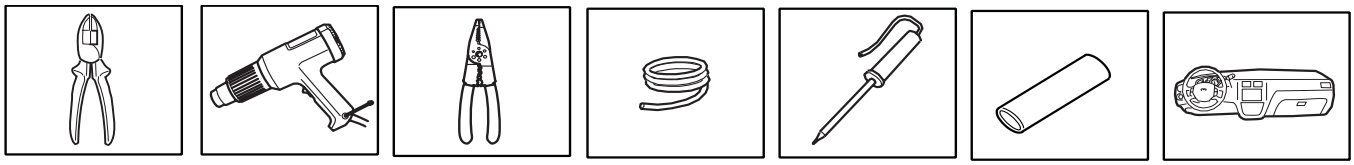
POSITIVE POLARITY CIRCUIT

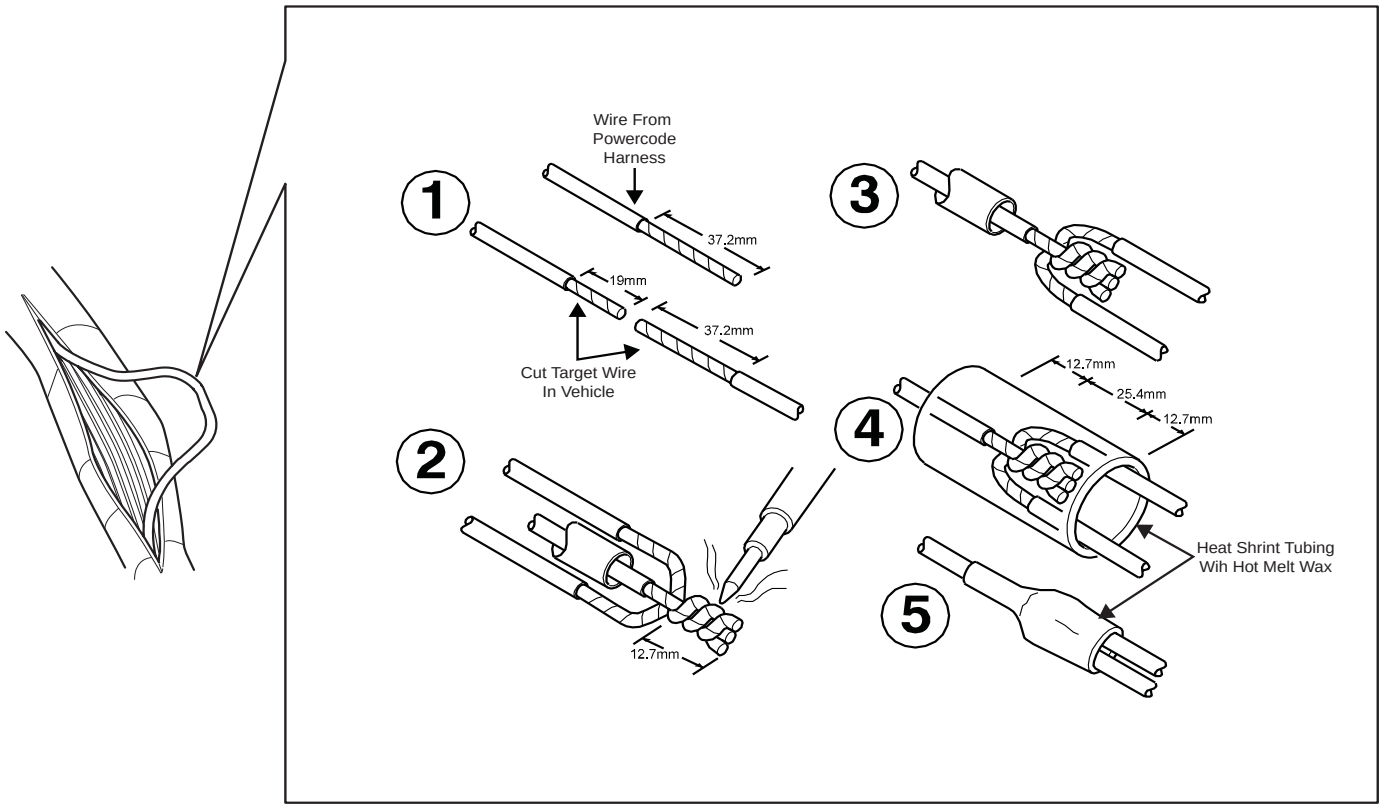


NEGATIVE POLARITY CIRCUIT

Wire Connection Procedures

1 Inline wire splice procedure





NOTE: TO INSURE PROPER INSTALLATION, USE THE FOLLOWING GUIDELINES:
APPLY FLOCK TAPE TO SHARP OR JAGGED AREAS DURING INSTALLATION OF WIRE HARNESS
APPLY FLOCK TAPE TO WIRENESS IN AREAS WHERE SQUEAK AND RATTLE CONDITIONSMAY OCCUR, i.e. CONNECTORS
SECURE WIREHARNESS AT LEAST 6MM FROM EXISTING SENSORS OR MODULES
SECURE WIRE HARNESS AT LEAST 19MM FROM MOVING PARTS, i.e. VACUUM MOTORS, etc.

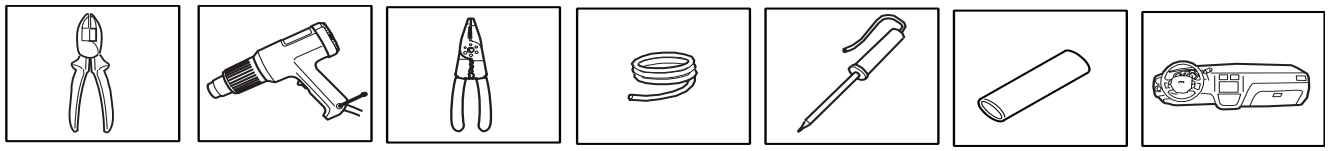
NOTE: IF AN UNRELIABLE METHOD OF WIRE SPLICING IS USED WHEN INSTALLING ELECTRICAL ADD-ON EQUIPMENT, IT MAY CAUSE ELECTRICAL SYSTEMS TO MALFUNCTION BY CREATING VARIABLE RESISTANCE OR A SHORT CIRCUIT. VARIABLE RESISTANCECAN RESULT FROM OXIDATION/COROSION CAUSED BY AIR WITHIN THE JOINT AND A SHORT CIRCUIT CAN RESULT FROM THE MOISTURE ON THE JOINT

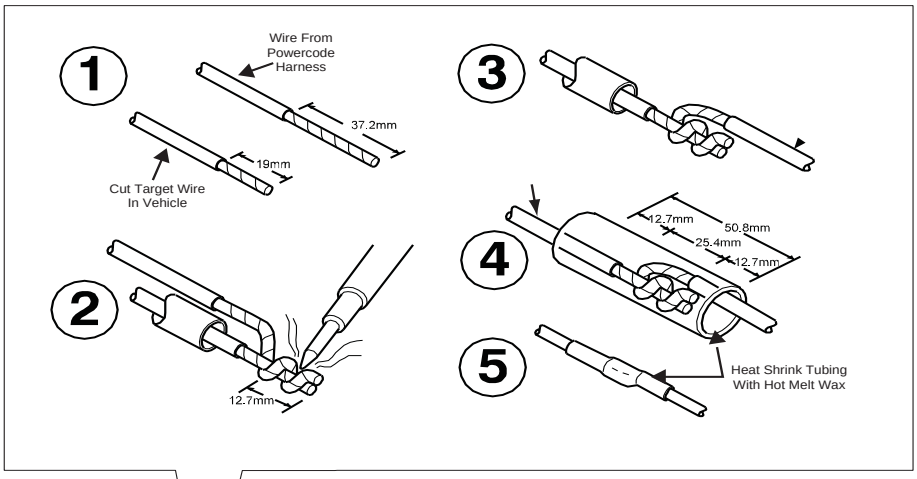
HEAT SHRINK TUBING MUST CONTAIN HOT MELT WAX. THIS WILL CREATE A WATERPROOF AND AIRTIGHT JOINT.

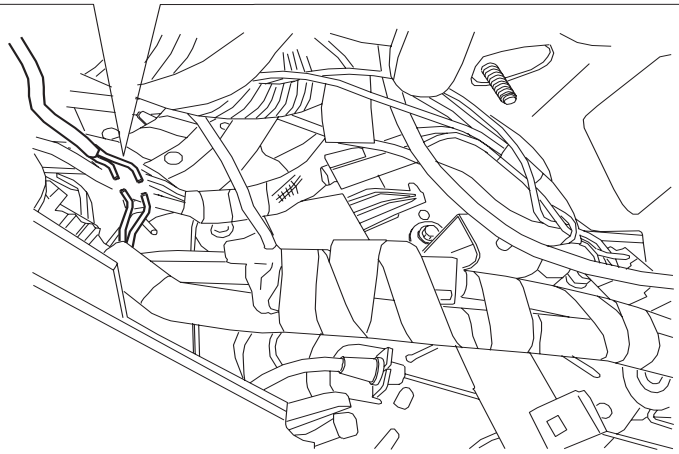
SOLDER MUST BE ROSIN CORE MILDLY ACTIVATED (RMA). DO NOT USE ACID CORE SOLDER.

DO NOT USE CRIMP-CONNECTORS OF ANY KIND. THEY ARE NOT A ROBUST METHOD FOR SPLICING IN NEW WIRES.

2 Ended Wire Splice Procedure







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VEHICLE SPECIFIC WIRING DIAGRAMS

1

This section presents Vehicle/Product specific wiring diagrams are provided for all systems. The diagrams are organized by vehicle (Year/Model) and by Product. For example, to find a specific wiring diagram for installing a RKE/VSS/RMST system in a 2002 Explorer Sport:

1. In the Bookmarks pane, click on the "+" symbol to the left of the bookmark for "2002MY".
2. Click on the "+" symbol to the left of the bookmark for for "Explorer Sport/Sport Trac.
3. Select the system that you are installing in the links revealed under Explorer Sport/Sport Trac.
4. Then using the ◄ ► buttons in the Acrobat toolbar, you can view the individual pages in the drawing.

2

Ⓐ Title block:

Box 1: Lists applicable vehicle(s) by year/make/model;

Box 2: Lists any vehicle trim level or special equipment required on the vehicle. This will generally be: ALL, w/Factory RKE or w/o Factory RKE. Note: If you are working on a vehicle with factory RKE, a drawing that lists "w/o RKE" in this box does not apply to this installation. Conversely, if you are working on a vehicle without factory RKE, disregard the drawings listing "w/Factory RKE" in this box.;

Box 3: Lists the system or systems covered by this drawing (System name --> Short name used in title block);

- Remote Start System with Deluxe Vehicle Security and Keyless Entry —> RKE/VSS/RMST
- Remote Start System with Keyless Entry —> RKE/RMST
- Remote Start System —> RMST
- Deluxe Vehicle Security System with Keyless Entry —> Deluxe RKE/VSS (shown in graphic below)
- Vehicle Security System with Keyless Entry —> RKE/VSS
- Vehicle Security System for Vehicles Equipped with Factory Keyless Entry —> VSS
- Keyless Entry System —> RKE

Box 4: Page number and total number of pages which make up the complete drawing;

Box 5: Revision date of drawing.

Ⓑ Lists the systems wires by Connector/Terminal, Wire color, and function.

Ⓒ Lists the vehicle circuit by the vehicle wire color and circuit polarity - Circuit name (wire color) ⊕ or ⊖ (indicates vehicle's circuit polarity).

Ⓓ List the circuit location in the vehicle. Clicking on the text will open another window showing a color photograph of the circuit location in the vehicle (internet connection required).

Ⓔ Optional connections - clicking on the "Optional installation feature" text, will jump to a diagram showing the connection of the optional circuit. Clicking on the "Go to Previous View" button will return to the original page.